

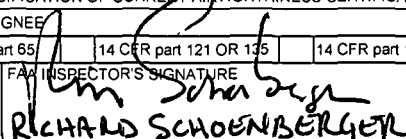


FAA FORM 8130-6, APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

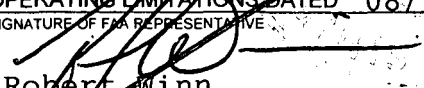
Form Approved O.M.B. No. 2120-0018
12/31/2010

 U.S. Department of Transportation Federal Aviation Administration		APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE		INSTRUCTIONS - Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use attachment. For special flight permits complete Sections II, VI and VII as applicable.																																																																																																																																																											
		I. AIRCRAFT DESIGNATION 1. REGISTRATION MARK: N406AB 2. AIRCRAFT BUILDER'S NAME (Make): General Atomics, ASI 3. AIRCRAFT MODEL DESIGNATION: UPA97000-32 4. YR. MFR.: 2004 5. AIRCRAFT SERIAL NO.: IP03 6. ENGINE BUILDER'S NAME (Make): Rotax 7. ENGINE MODEL DESIGNATION: 914UL2 8. NUMBER OF ENGINES: One (1) 9. PROPELLER BUILDER'S NAME (Make): General Atomics, ASI 10. PROPELLER MODEL DESIGNATION: UPA42430-11 11. AIRCRAFT IS (Check if applicable): IMPORT																																																																																																																																																													
APPLICATION IS HEREBY MADE FOR: (Check applicable items)																																																																																																																																																															
<table border="1"> <tr> <td>A</td> <td>1</td> <td>STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category)</td> <td>NORMAL</td> <td>UTILITY</td> <td>ACROBATIC</td> <td>TRANSPORT</td> <td>COMMUTER</td> <td>BALLOON</td> <td>OTHER</td> </tr> <tr> <td>B</td> <td>✓</td> <td>SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)</td> <td colspan="7">UNMANNED AIRCRAFT</td> </tr> <tr> <td rowspan="15">II. CERTIFICATION REQUESTED</td> <td>7</td> <td>PRIMARY</td> <td colspan="3"></td> <td colspan="3"></td> <td></td> </tr> <tr> <td>9</td> <td>LIGHT-SPORT (Indicate Class)</td> <td>AIRPLANE</td> <td>POWER-PARACHUTE</td> <td>WEIGHT-SHIFT-CONTROL</td> <td>GLIDER</td> <td>LIGHTER THAN AIR</td> <td colspan="2"></td> </tr> <tr> <td>2</td> <td>LIMITED</td> <td colspan="7"></td> </tr> <tr> <td>5</td> <td>PROVISIONAL (Indicate Class)</td> <td>1</td> <td>CLASS I</td> <td colspan="5"></td> </tr> <tr> <td></td> <td></td> <td>2</td> <td>CLASS II</td> <td colspan="5"></td> </tr> <tr> <td rowspan="3">3</td> <td rowspan="3">RESTRICTED (Indicate operation(s) to be conducted)</td> <td>1</td> <td>AGRICULTURE AND PEST CONTROL</td> <td>2</td> <td>AERIAL SURVEY</td> <td>3</td> <td>AERIAL ADVERTISING</td> </tr> <tr> <td>4</td> <td>FOREST (Wildlife Conservation)</td> <td>5</td> <td>PATROLLING</td> <td>6</td> <td>WEATHER CONTROL</td> </tr> <tr> <td>0</td> <td>OTHER (Specify)</td> <td colspan="3"></td> </tr> <tr> <td rowspan="4">4</td> <td rowspan="4">✓ EXPERIMENTAL (Indicate operation(s) to be conducted)</td> <td>1</td> <td>✓ RESEARCH AND DEVELOPMENT</td> <td>2</td> <td>AMATEUR BUILT</td> <td>3</td> <td>EXHIBITION</td> </tr> <tr> <td>4</td> <td>AIR RACING</td> <td>5</td> <td>✓ CREW TRAINING</td> <td>6</td> <td>✓ MARKET SURVEY</td> </tr> <tr> <td>0</td> <td>TO SHOW COMPLIANCE WITH THE CFR</td> <td>7</td> <td>OPERATING (Primary Category) KIT BUILT AIRCRAFT</td> <td colspan="2"></td> </tr> <tr> <td>8</td> <td>OPERATING LIGHT-SPORT</td> <td>8A</td> <td>Existing Aircraft without an airworthiness certificate & do not meet § 103.1</td> <td colspan="2"></td> </tr> <tr> <td></td> <td></td> <td>8B</td> <td>Operating Light-Sport Kit-Built</td> <td colspan="2"></td> </tr> <tr> <td></td> <td></td> <td>8C</td> <td>Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190</td> <td colspan="2"></td> </tr> <tr> <td rowspan="6">8</td> <td rowspan="6">SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)</td> <td>1</td> <td>FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE</td> <td colspan="3"></td> </tr> <tr> <td>2</td> <td>EVACUATION FROM AREA OF IMPENDING DANGER</td> <td colspan="3"></td> </tr> <tr> <td>3</td> <td>OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT</td> <td colspan="3"></td> </tr> <tr> <td>4</td> <td>DELIVERING OR EXPORTING</td> <td>5</td> <td>PRODUCTION FLIGHT TESTING</td> </tr> <tr> <td>6</td> <td>CUSTOMER DEMONSTRATION FLIGHTS</td> <td colspan="2"></td> </tr> <tr> <td>C</td> <td>6</td> <td>MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)</td> <td colspan="3"></td> </tr> </table>						A	1	STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category)	NORMAL	UTILITY	ACROBATIC	TRANSPORT	COMMUTER	BALLOON	OTHER	B	✓	SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)	UNMANNED AIRCRAFT							II. CERTIFICATION REQUESTED	7	PRIMARY								9	LIGHT-SPORT (Indicate Class)	AIRPLANE	POWER-PARACHUTE	WEIGHT-SHIFT-CONTROL	GLIDER	LIGHTER THAN AIR			2	LIMITED								5	PROVISIONAL (Indicate Class)	1	CLASS I								2	CLASS II						3	RESTRICTED (Indicate operation(s) to be conducted)	1	AGRICULTURE AND PEST CONTROL	2	AERIAL SURVEY	3	AERIAL ADVERTISING	4	FOREST (Wildlife Conservation)	5	PATROLLING	6	WEATHER CONTROL	0	OTHER (Specify)				4	✓ EXPERIMENTAL (Indicate operation(s) to be conducted)	1	✓ RESEARCH AND DEVELOPMENT	2	AMATEUR BUILT	3	EXHIBITION	4	AIR RACING	5	✓ CREW TRAINING	6	✓ MARKET SURVEY	0	TO SHOW COMPLIANCE WITH THE CFR	7	OPERATING (Primary Category) KIT BUILT AIRCRAFT			8	OPERATING LIGHT-SPORT	8A	Existing Aircraft without an airworthiness certificate & do not meet § 103.1					8B	Operating Light-Sport Kit-Built					8C	Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190			8	SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)	1	FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE				2	EVACUATION FROM AREA OF IMPENDING DANGER				3	OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT				4	DELIVERING OR EXPORTING	5	PRODUCTION FLIGHT TESTING	6	CUSTOMER DEMONSTRATION FLIGHTS			C	6	MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)			
A	1	STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category)	NORMAL	UTILITY	ACROBATIC	TRANSPORT	COMMUTER	BALLOON	OTHER																																																																																																																																																						
B	✓	SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)	UNMANNED AIRCRAFT																																																																																																																																																												
II. CERTIFICATION REQUESTED	7	PRIMARY																																																																																																																																																													
	9	LIGHT-SPORT (Indicate Class)	AIRPLANE	POWER-PARACHUTE	WEIGHT-SHIFT-CONTROL	GLIDER	LIGHTER THAN AIR																																																																																																																																																								
	2	LIMITED																																																																																																																																																													
	5	PROVISIONAL (Indicate Class)	1	CLASS I																																																																																																																																																											
			2	CLASS II																																																																																																																																																											
	3	RESTRICTED (Indicate operation(s) to be conducted)	1	AGRICULTURE AND PEST CONTROL	2	AERIAL SURVEY	3	AERIAL ADVERTISING																																																																																																																																																							
			4	FOREST (Wildlife Conservation)	5	PATROLLING	6	WEATHER CONTROL																																																																																																																																																							
			0	OTHER (Specify)																																																																																																																																																											
	4	✓ EXPERIMENTAL (Indicate operation(s) to be conducted)	1	✓ RESEARCH AND DEVELOPMENT	2	AMATEUR BUILT	3	EXHIBITION																																																																																																																																																							
			4	AIR RACING	5	✓ CREW TRAINING	6	✓ MARKET SURVEY																																																																																																																																																							
			0	TO SHOW COMPLIANCE WITH THE CFR	7	OPERATING (Primary Category) KIT BUILT AIRCRAFT																																																																																																																																																									
			8	OPERATING LIGHT-SPORT	8A	Existing Aircraft without an airworthiness certificate & do not meet § 103.1																																																																																																																																																									
			8B	Operating Light-Sport Kit-Built																																																																																																																																																											
			8C	Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190																																																																																																																																																											
	8	SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)	1	FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE																																																																																																																																																											
2			EVACUATION FROM AREA OF IMPENDING DANGER																																																																																																																																																												
3			OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT																																																																																																																																																												
4			DELIVERING OR EXPORTING	5	PRODUCTION FLIGHT TESTING																																																																																																																																																										
6			CUSTOMER DEMONSTRATION FLIGHTS																																																																																																																																																												
C			6	MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)																																																																																																																																																											
III. OWNER'S CERTIFICATION A. REGISTERED OWNER (As shown on certificate of aircraft registration) IF DEALER, CHECK HERE → NAME: _____ ADDRESS: _____ B. AIRCRAFT CERTIFICATION BASIS (Check applicable blocks and complete items as indicated) <table border="1"> <tr> <td>AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.)</td> <td>N/A</td> <td>✓ AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are compiled with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)</td> <td>2011-02</td> </tr> <tr> <td>AIRCRAFT LISTING (Give page number(s))</td> <td>N/A</td> <td>SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated)</td> <td>N/A</td> </tr> </table> C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS <table border="1"> <tr> <td>✓ CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417</td> <td>TOTAL AIRFRAME HOURS</td> <td>1069.8</td> <td>3</td> <td>EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed)</td> <td>2.4</td> </tr> </table> D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested. DATE OF APPLICATION: January 20, 2011 NAME AND TITLE (Print or type): Gary Bender, Director of Flight Operations SIGNATURE: 						AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.)	N/A	✓ AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are compiled with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)	2011-02	AIRCRAFT LISTING (Give page number(s))	N/A	SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated)	N/A	✓ CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417	TOTAL AIRFRAME HOURS	1069.8	3	EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed)	2.4																																																																																																																																												
AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.)	N/A	✓ AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are compiled with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)	2011-02																																																																																																																																																												
AIRCRAFT LISTING (Give page number(s))	N/A	SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated)	N/A																																																																																																																																																												
✓ CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417	TOTAL AIRFRAME HOURS	1069.8	3	EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed)	2.4																																																																																																																																																										
IV. INSPECTION AGENCY VERIFICATION A. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: (Complete the section only if 14 CFR part 21.183(d) applies.) <table border="1"> <tr> <td>2</td> <td>14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)</td> <td>3</td> <td>CERTIFICATED MECHANIC (Give Certificate No.)</td> <td>6</td> <td>CERTIFICATED REPAIR STATION (Give Certificate No.)</td> </tr> <tr> <td>5</td> <td colspan="5">AIRCRAFT MANUFACTURER (Give name or firm)</td> </tr> </table> DATE: _____ TITLE: _____ SIGNATURE: _____						2	14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)	3	CERTIFICATED MECHANIC (Give Certificate No.)	6	CERTIFICATED REPAIR STATION (Give Certificate No.)	5	AIRCRAFT MANUFACTURER (Give name or firm)																																																																																																																																																		
2	14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)	3	CERTIFICATED MECHANIC (Give Certificate No.)	6	CERTIFICATED REPAIR STATION (Give Certificate No.)																																																																																																																																																										
5	AIRCRAFT MANUFACTURER (Give name or firm)																																																																																																																																																														
V. FAA REPRESENTATIVE CERTIFICATION (Check ALL applicable block items A and B) A. I find that the aircraft described in Section I or VII meets requirements for <table border="1"> <tr> <td>4</td> <td>THE CERTIFICATE REQUESTED</td> </tr> <tr> <td></td> <td>AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE</td> </tr> </table> B. Inspection for a special permit under Section VII was conducted by: <table border="1"> <tr> <td>FAA INSPECTOR</td> <td>FAA DESIGNEE</td> </tr> <tr> <td>CERTIFICATE HOLDER UNDER</td> <td>14 CFR part 65</td> </tr> <tr> <td>14 CFR part 65</td> <td>14 CFR part 121 OR 135</td> </tr> <tr> <td>14 CFR part 145</td> <td></td> </tr> </table> DATE: JAN 20, 2011 MIDO/FSDO Office: ANM-108L 4 DESIGNEE'S SIGNATURE AND NO.: 1 SIGNATURE:  RICHARD SCHOENBERGER						4	THE CERTIFICATE REQUESTED		AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE	FAA INSPECTOR	FAA DESIGNEE	CERTIFICATE HOLDER UNDER	14 CFR part 65	14 CFR part 65	14 CFR part 121 OR 135	14 CFR part 145																																																																																																																																															
4	THE CERTIFICATE REQUESTED																																																																																																																																																														
	AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE																																																																																																																																																														
FAA INSPECTOR	FAA DESIGNEE																																																																																																																																																														
CERTIFICATE HOLDER UNDER	14 CFR part 65																																																																																																																																																														
14 CFR part 65	14 CFR part 121 OR 135																																																																																																																																																														
14 CFR part 145																																																																																																																																																															

VI. PRODUCTION FLIGHT TESTING	A. MANUFACTURER							
	NAME		ADDRESS					
	B. PRODUCTION BASIS <i>(Check applicable item)</i>							
	<input type="checkbox"/>	PRODUCTION CERTIFICATE <i>(Give production certificate number)</i> _____						
	<input type="checkbox"/>	TYPE CERTIFICATE ONLY						
	<input type="checkbox"/> APPROVED PRODUCTION INSPECTION SYSTEM							
C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS								
	DATE OF APPLICATION	NAME AND TITLE <i>(Print or Type)</i>		SIGNATURE				
VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST	A. DESCRIPTION OF AIRCRAFT							
	REGISTERED OWNER		ADDRESS					
	BUILDER <i>(Make)</i>		MODEL					
	SERIAL NUMBER		REGISTRATION MARK					
	B. DESCRIPTION OF FLIGHT CUSTOMER DEMONSTRATION FLIGHTS <input type="checkbox"/> <i>(Check if applicable)</i>							
	FROM		TO					
	VIA	DEPARTURE DATE	DURATION					
	C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT							
	<input type="checkbox"/>	PILOT	<input type="checkbox"/>	CO-PILOT	<input type="checkbox"/>	FLIGHT ENGINEER	<input type="checkbox"/>	OTHER <i>(Specify)</i>
	D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS:							
	E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION: <i>(Use attachment if necessary)</i>							
	F. CERTIFICATION – I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 <u>et seq.</u> and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is safe for the flight described.							
		DATE	NAME AND TITLE <i>(Print or Type)</i>			SIGNATURE		
VIII. AIRWORTHINESS DOCUMENTATION (FAA/DESIGNEE use only)	<input checked="" type="checkbox"/>	A. Operating Limitations and Markings in Compliance with 14 CFR Section 91.9, as applicable.			G. Statement of Conformity, FAA Form 8130-9 <i>(Attach when required)</i>			
	<input checked="" type="checkbox"/>	B. Current Operating Limitations Attached			H. Foreign Airworthiness Certification for Import Aircraft <i>(Attach when required)</i>			
	<input checked="" type="checkbox"/>	C. Data, Drawings, Photographs, etc. <i>(Attach when required)</i>			I. Previous Airworthiness Certificate Issued in Accordance with 14 CFR Section _____ CAR _____ <i>(Original Attached)</i>			
	<input checked="" type="checkbox"/>	D. Current Weight and Balance information Available in Aircraft GCS						
	<input type="checkbox"/>	E. Major Repair and Alteration, FAA Form 337 <i>(Attach when required)</i>			<input checked="" type="checkbox"/>	J. Current Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.131(a), (c), (e) <i>(Copy Attached)</i>		
	<input checked="" type="checkbox"/>	F. This inspection Recorded in Aircraft Records			K. Light-Sport Aircraft Statement of Compliance, FAA Form 8130-15 <i>(Attach when required)</i>			

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION EXPERIMENTAL (UNMANNED AIRCRAFT)	
	PURPOSE Research and Dev/Market Surv/Crew Training	
B	MANUFACTURER	NAME N/A
		ADDRESS N/A
C	FLIGHT	FROM N/A
		TO N/A
D	N- 406AB	SERIAL NO. IP03
	BUILDER General Atomics ASI	MODEL UPA97000-32
E	DATE OF ISSUANCE A08/11/10	EXPIRY 12/31/10
	OPERATING LIMITATIONS DATED 08/11/10 ARE PART OF THIS CERTIFICATE	
	SIGNATURE OF FAA REPRESENTATIVE  Robert Winn	DESIGNATION OR OFFICE NO. ANM-108L

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production flight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire; and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the Administrator as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.



GENERAL ATOMICS AERONAUTICAL

AIRCRAFT MAINTENANCE RECORD

AIRCRAFT/EQUIPMENT S/N 1P03	FLIGHT #	ORIGINATOR P. Hoffman	DISC	DATE 1/20/2011	NCR #	FDR #
--------------------------------	----------	--------------------------	------	-------------------	-------	-------

DISCREPANCY:

This UAS requires an FAA airworthiness inspection with regards to the application for special airworthiness certificate. Experimental for Research and Development, crew training, market survey
DATED: 1/20/2011

CORRECTIVE ACTION: CAMS SCREEN 122 TAG NUMBER IS THE AFTO 350 TAG NUMBER:

I find this UAS meets the reqs for the certification requested and have issued a special AW/CERT Dated 1/20/2011. The operation of this UAS is contingent upon GA-ASI compliance with program letter dated: 1/20/2011 and the applicable operating limitations for this UAS Dated: 1/20/2011. A new condition inspection is required prior to issuance of another special AW/CERT. CONT.

DISPOSITION:

CONT.

I certify that this U/A has been inspected on _____
in accordance with the scope and detail of the General Atomic
Inspections and Maintenance Program, and was found to be
in a condition for safe operation.
Total time-in-service _____
Name _____
Signature _____

Richard Schoenberger
RICHARD SCHOENBERGER
ASI/FAA/LA-MIDO

PA		UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE				SIAL CK #		HOURS/ CYCLES	
A		A CATEGORY/DESIGNATION		EXPERIMENTAL (UNMANNED AIRCRAFT)					
B		B PURPOSE		Research & Development/Market Survey/Crew Training					
C		C MANUFACTURER		NAME N/A ADDRESS N/A					
D		D FLIGHT		FROM N/A TO N/A					
E		E N- 406AB		SERIAL NO. 1P03					
		BUILDER General Atomic ASI		MODEL UPA97000-32					
		DATE OF ISSUANCE 01/20/2011		EXPIRY 07/20/2011					
		OPERATING LIMITATIONS DATED 01/20/2011		ARE PART OF THIS CERTIFICATE					
		SIGNATURE OF FAA REPRESENTATIVE <i>Richard Schoenberger</i>		DESIGNATION OR OFFICE NO. ANM-108L					
AVIONIC PRE /		Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).						SINE HOBBS RE / POST /	
FAA Form 8130-7 (07/04)		SEE REVERSE SIDE				NSN: 0052-00-693-4000			
CORRECTED BY		EMPLOYEE NUMBER		DATE		INSPECTED BY		EMPLOYEE NUMBER	
WORK ORDER #		LOCATION		350 TAG NUMBER		PROJECT NUMBER			
SERIAL NUMBER		SYSTEM/REASON		UP		DOWN		PRTS #	
269922				<input type="checkbox"/>		<input type="checkbox"/>			



Los Angeles Manufacturing Inspection District Office
3960 Paramount Blvd.
Lakewood, CA 90712

Operating Limitations
Experimental: Research and Development, Market Survey,
and/or Crew Training

REGISTERED OWNER NAME: GENERAL ATOMICS AERONAUTICAL SYSTEMS, INC.	AIRCRAFT BUILDER: GENERAL ATOMICS AERONAUTICAL SYSTEMS, INC.
REGISTERED OWNER ADDRESS: 14200 KIRKHAM WAY POWAY, CA 92064	AIRCRAFT SERIAL NUMBER: IP03
AIRCRAFT DESCRIPTION: ITALIAN PREDATOR FIXED WING UNMANNED AIRCRAFT	AIRCRAFT MODEL DESIGNATION: ITALIAN PREDATOR, UPA97000-32
AIRCRAFT REGISTRATION: N406AB	ENGINE MODEL: ROTAX 914, FUEL INJECTED
YEAR MANUFACTURED: 2004	PROPELLER MODEL: UPA42430-11, General Atomics

The following conditions and limitations apply to all flight operations for the General Atomics Aeronautical Systems, Inc., (GA-ASI) Italian Predator unmanned aircraft system (UAS) while operating in the National Airspace System (NAS).

1. General Information.

a. Integrated system. For the purposes of this special airworthiness certificate and operating limitations, the Italian Predator Unmanned Aircraft System (UAS) operated by GA-ASI is considered to be an integrated system. The system is composed of the following:

- (1) Italian Predator unmanned aircraft, model UPA97000-32.
- (2) UAS control station(s), fixed, mobile, ground-based, or airborne.
- (3) Telemetry, launch, and recovery equipment.

(4) Communications and navigation equipment, including ground and/or airborne equipment used for command and control of the Italian Predator UAS.

(5) Equipment on the ground and in the air used for communication with the chase aircraft, other members of the flight crew, observers, air traffic control (ATC), and other users of the NAS.

b. Compliance with 14 CFR part 61 (Certification: Pilots, Flight Instructors, and Ground Instructors) and part 91 (General Operating and Flight Rules). Unless otherwise specified in this document, the UA pilot-in-command (PIC) and GA-ASI must comply with all applicable sections and parts of 14 CFR including, but not limited to, parts 61 and 91.

c. Operational requirements.

(1) No person may operate this UAS for other than the purpose of research and development and/or crew training, to accomplish the flight operation outlined in GA-ASI Program Letter dated 01/20/2011, which describes compliance with § 21.193(d), Experimental certificates: General, and has been made available to the UA PIC.

(2) This UAS must be operated in accordance with applicable air traffic and general operating rules of part 91 and all additional limitations herein prescribed under the provisions of § 91.319(i), Aircraft having experimental certificates: Operating limitations.

(3) GA-ASI must accumulate at least 50 flight hours flight time on the UAS before customer crew training is permitted, in accordance with § 21.195(d), Experimental certificates: Aircraft to be used for market surveys, sales demonstrations, and customer crew training.

d. UA condition. The UA PIC must determine that the UA is in a condition for safe operation, and in a configuration appropriate for the purpose of the intended flight.

e. Multiple-purpose operations. When changing between operating purposes of a multiple purpose certificate, GA-ASI must determine that the aircraft is in a condition for safe operation and appropriate for the purpose intended. A record entry will be made by an appropriately rated person (that is, an individual authorized by the applicant and acceptable to the FAA) to document that finding in the maintenance records.

f. Operation exceptions. No person may operate this UA to carry property for compensation or hire (§ 91.319(a)(2)).

g. UA markings.

(1) This UA must be marked with its U.S. registration number in accordance with part 45 or alternative marking approval issued by the FAA Production and Airworthiness Division, AIR-200.

(2) This UA must display the word *Experimental* in accordance with § 45.23(b), Display of marks, unless otherwise granted an exemption from this requirement.

h. Required documentation. Prior to conducting the initial flight operations, GA-ASI must forward a scanned electronic copy of the Program Letter, and signed copies of the Special Airworthiness Certificate, and Operating Limitations to the following persons by email:

(1) FAA Western Terminal Service Area, Mark Dillon, Unmanned Aircraft Systems, Air Traffic Control Specialist, Operations Support Group-NISC contractor, ATO, Western Service Center, Operations Support Group, AJV-W23, mark.ctr.dillon@faa.gov, telephone (425) 203-4522.

(2) Richard Posey, Aviation Safety Inspector, Production and Airworthiness Division, AIR-200, 950 L'enfant Plaza SW, Washington, DC 200021, telephone (202) 385-6378 email richard.posey@faa.gov.

i. Change in registrant address. Section 47.45, Change of address, requires that the FAA Aircraft Registry be notified within 30 days of any change in the aircraft registrant's address. Such notification is to be made by providing AC Form 8050-1, Aircraft Registration Application, to the FAA Aircraft Registration Branch (AFS-750) in Oklahoma City, Oklahoma.

j. Certificate display and manual availability. The airworthiness and registration certificates must be displayed, and the aircraft flight manual must be available to the pilot, as prescribed by the applicable sections of 14 CFR, or as prescribed by an exemption granted in accordance with 14 CFR part 11, General Rulemaking Procedures, to GA-ASI.

2. Program Letter. The Italian Predator Program Letter, dated 01/20/2011, will be used as a basis for determining the operating limitations prescribed in this document. All flight operations must be conducted in accordance with the provisions of this document.

3. Flight Test Program. The flight test program is defined in UPA97000-32, Acceptance Test Plan for the Italian Predator Unmanned Aerial Vehicle. The purpose of the flight test plan is to conduct flight tests prior to returning the aircraft to the Italian Ministry of Defense.

4. Authorized Flight Operations Area.

a. General. All operations will be conducted in accordance with the FAA accepted GA-ASI Flight Operations Procedures, ASI-00009 (Civil), and GA-ASI Ground Operations Procedures, ASI-00056 (Civil).

(1) VFR cloud clearances and visibilities for Class E airspace will be used regardless of class of airspace the UAS is operating in.

(2) Special VFR is not authorized.

b. Description of the authorized flight operations area. The base of operations for the UAS shall be Gray Butte Field, Palmdale, CA and El Mirage Field, Adelanto, CA.

c. Flight test area. The flight operations area authorized for the Italian Predator UA will be referred to as the Primary Containment Area (PCA) and is depicted graphically below. Flight operations in the PCA shall be conducted within the defined boundaries at or below 13,000 ft MSL. When operating in a terminal environment, the UA must have line of sight communications. Flight operations shall not be conducted within the Victorville (KVCV) Class D airspace. The PCA is identified as follows:

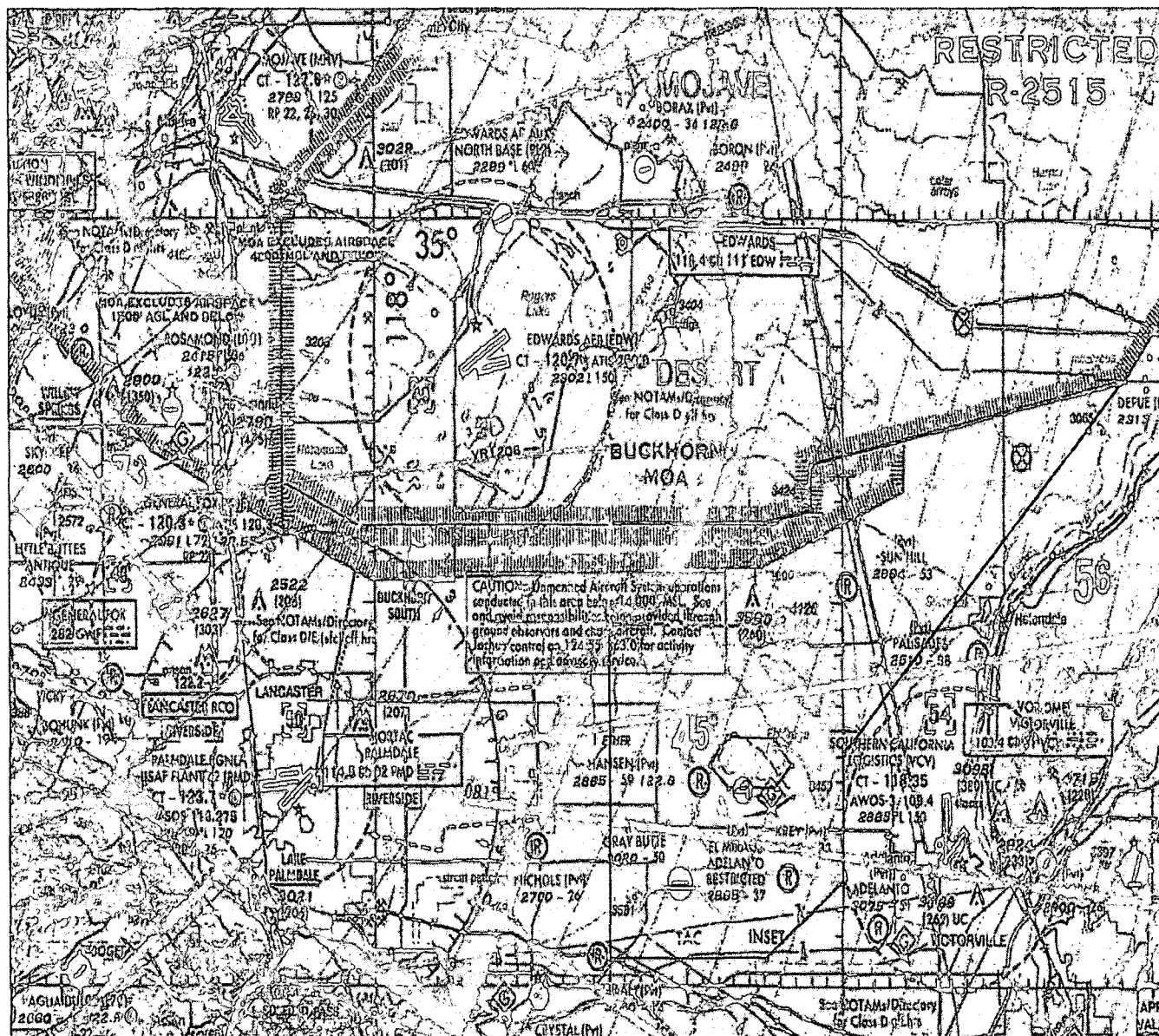


Figure 1: Primary Containment Area

Transit Area – GREEN

S1	N34°44'00"	W 118°00'03"
SE	N34°44'00"	W 117°45'00"
NE	N34°48'00"	W 117°45'00"
N1	N34°48'00"	W 118°01'03"
N2	N34°49'40"	W 118°05'48"
N3	N34°52'00"	W 118°05'48"
NW	N34°56'00"	W 118°21'03"
W	N34°54'00"	W 118°21'03"
SW	N34°49'45"	W 118°14'03"

Local Ops Area - BLUE

SW	N34°31'00"	W 117°45'00"
NW	N34°48'00"	W 117°45'00"
N1	N34°48'00"	W 117°35'03"
N2	N34°48'30"	W 117°32'03"
N3	N34°50'15"	W 117°32'03"
NE	N34°53'30"	W 117°11'53"
E1	N34°39'00"	W 117°30'00"
SE1	N34°34'00"	W 117°30'00"
SE2	N34°31'00"	W 117°37'00"

Lost Link Orbit Points**El Mirage (99CL) Airport – RED****North Emergency Mission MQ-9 Waypoints****Approved Orbit
Altitudes**

1 N34 38 32 W 117 38 39	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
2 N34 39 36 W 117 37 25	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
3 N34 39 35 W 117 34 29	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
4 N34 38 32 W 117 33 20	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
5 N34 37 38 W 117 34 25	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
6 N34 37 39 W 117 37 28	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL

Gray Butte Field (04CA) Airport – YELLOW**South Emergency Mission MQ-9 Waypoints****Approved Orbit
Altitudes**

1 N34 32 43 W 117 43 24	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
2 N34 33 43 W 117 42 23	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
3 N34 33 44 W 117 39 16	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
4 N34 32 45 W 117 38 07	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
5 N34 31 45 W 117 39 21	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
6 N34 31 45 W 117 42 13	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL

d. Authorized flight times and conditions. All flight operations must be conducted during daylight hours under visual flight rules (VFR). It is recognized that General Atomics may be permitted to operate within Special Use Airspace (SUA) per authorization of the using agency. Under these circumstances, should the UA venture beyond the boundaries of the SUA (e.g., spill out), provisions of this experimental certificate shall apply, including authorization to only operate within the boundaries of the PCA. In these circumstances, General Atomics is responsible for notifying the FAA of the breach of any operations.

e. Criteria for remaining in the flight test area. The UAS PIC must ensure all UA flight operations remain within the lateral and vertical boundaries of the PCA. Furthermore, the UAS PIC must take into account all factors that may affect the capability of the UA to remain within the flight test area. This includes, but is not limited to, considerations for wind, gross weight, and glide distances.

f. Incident/accident reporting. Any incident/accident and any flight operation that transgresses the lateral or vertical boundaries of the flight test area or any restricted airspace must be reported to the FAA within 24 hours. This information must be reported to the Unmanned Aircraft Program Office, AFS-407. AFS-407 can be reached by telephone at 202-385-4636 and fax at 202-385-4651. Accidents must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: www.nts.gov. Further flight operations must not be conducted until the incident is reviewed by AFS-407 and authorization to resume operations is provided to GA-ASI.

5. Flight Testing. Flight test operations shall be divided into 2 phases:

a. Phase 1.

(1) Shall be conducted within visual line of sight of the pilot/observer.

(2) Shall be within 5 statute miles of the airport for the first 5 flight hours, after which the radius may be expanded to 10 statute miles.

(3) During Phase 1 flight testing, the aircraft may not be controlled by satellite communications for the first 10 flight hours. A minimum of 1 flight hour shall be demonstrated under satellite control prior to exiting Phase 1.

NOTE: Operation of satellite communications is at the discretion of General Atomics. If satellite communications is demonstrated during Phase II, paragraph 5(a)(3) applies within 10 statute miles of the airport.

(4) Fuel load shall be limited to 150 pounds (approximately 6 hours), this includes a reserve required by 14 CFR 91.151.

(5) Initial Phase 1 flight testing shall be completed upon accumulation of 12 flight hours. Following satisfactory completion of Phase I flight testing, the flight operations director or chief pilot must certify in the records that the aircraft has been shown to comply with § 91.319(b). Compliance with § 91.319(b) must be recorded in the aircraft records with the following, or a similarly worded, statement:

"I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during the flight testing: speeds V_{so} _____, V_x _____, and V_y _____."

b. Phase 2 flight-testing authorizes flight in the PCA and the Edwards ranges. Fuel shall be limited to that necessary to complete the intended mission plus 50 pounds.

6. UA Pilots and Observers.

a. UA PIC roles and responsibilities.

(1) All flight operations must have a designated UA PIC. The UA PIC has responsibility over each flight conducted and is accountable for the UA flight operation.

(2) The UA PIC must perform crew duties for only one UA at a time.

(3) The UA PIC is responsible for the safety of the UA as well as persons and property along the UA flight path. This includes, but is not limited to, collision avoidance and the safety of persons and property in the air and on the ground.

(4) The UA PIC must avoid densely populated areas (§ 91.319) and exercise increased vigilance when operating within or in the vicinity of published airway boundaries.

b. UA PIC certification and ratings requirements.

(1) UA pilots shall hold, at a minimum, an FAA Private Pilot certificate, Instrument Rating, Airplane category with Single or Multiengine class ratings, and have it in their possession.

(2) The UA PIC must have and be in possession of a valid second-class (or higher) airman medical certificate issued under 14 CFR part 67, Medical Standards and Certification.

c. UA PIC currency, flight review, and training.

(1) No person may act as pilot in command of an unmanned aircraft unless that person has made at least three takeoffs and three landings in manned aircraft within the preceding 90 days acting as the sole manipulator of the flight controls.

(2) The UA PIC must maintain currency in unmanned aircraft in accordance with GA-ASI company procedures.

(3) The UA PIC must have a flight review in unmanned aircraft every 24 calendar months in accordance with GA-ASI company procedures.

(4) All UA PICs must have successfully completed applicable GA-ASI company training for the UAS.

(5) Training of UA pilots shall be conducted by certified flight instructors (CFI) or ground instructors (GI). Required training and currency events shall be endorsed by the CFI/GI in company records and the pilot's logbook. Instructors shall follow the guidance specified in 14 CFR 61, Subpart H and Subpart I and shall maintain currency in accordance with these sections.

d. Supplemental UA pilot roles and responsibilities.

(1) Any additional UA pilot(s) assigned to a crew station during UA flight operations will be considered a supplemental UA pilot.

(2) A supplemental UA pilot assists the PIC in the operation of the UA and may do so at the same or a different control station as the PIC. The UA PIC will have operational override capability over any supplemental UA pilots, regardless of position.

(3) A supplemental UA pilot must perform crew duties for only one UA at a time.

e. Supplemental UA pilot certification.

(1) UA pilots shall hold, at a minimum, an FAA Private Pilot certificate, Instrument Rating, Airplane category with Single or Multiengine class ratings, and have it in their possession.

(2) The UA PIC must have and be in possession of a valid second-class (or higher) airman medical certificate issued under 14 CFR part 67, Medical Standards and Certification.

f. Supplemental UA pilot currency, flight review, and training.

(1) All UA pilots must maintain currency in unmanned aircraft in accordance with GA-ASI company procedures.

(2) All UA pilots must have a flight review in unmanned aircraft every 24 calendar months in accordance with GA-ASI company procedures.

(3) All UA pilots must have successfully completed applicable GA-ASI training for the UAS.

(4) Training of UA pilots shall be conducted by certified flight instructors (CFI) or ground instructors (GI). Required training and currency events shall be endorsed by the CFI/GI in company records and the pilot's logbook. Instructors shall follow the guidance specified in 14 CFR 61, Subpart H and Subpart I and shall maintain currency in accordance with these sections.

g. Observer roles and responsibilities. The task of the observer is to provide the UA PIC with instructions to maneuver the UA clear of any potential collision with other traffic. To satisfy these requirements:

(1) The observer must perform crew duties for only one UA at a time.

(2) At no time will the observer permit the UA to operate beyond the line-of-sight necessary to ensure maneuvering information can be reliably determined.

(3) At no time will the observer conduct his/her duties more than 2.0 statute miles laterally or 3000 ft vertically from the UA.

(4) An observer must maintain visual contact with the UA to discern UA attitude and trajectory in relation to conflicting traffic.

(5) An observer may be positioned in a chase aircraft. When a chase aircraft is used, it must maintain a reasonable proximity, and must position itself relative to the UA to reduce the hazard of collision in accordance with § 91.111, Operating near other aircraft. When the observer is located in a chase aircraft, the observer's duties must be dedicated to the task of observation only. Concurrent duty as pilot of the chase aircraft is not authorized.

(6) Observers must continually scan the airspace for other aircraft that pose a potential conflict.

(7) All flight operations conducted in the flight test area must have an observer to perform traffic avoidance and visual observation to fulfill the see-and-avoid requirement of § 91.113, Right-of-way rules: Except water operations.

Supp UA Pilot Cont -

Sensor of - Army Limitations to US Defined for

Not Confirmed

to

Confirmed

h. Observer certification.

(1) All observers must either hold, at a minimum, an FAA private pilot license or military equivalent, or must have successfully completed specific observer training acceptable to the FAA. An observer does not require currency as a pilot.

(2) All observers must have in their possession a valid second-class (or higher) airman medical certificate issued under part 67.

i. Observer training.

(1) All observers must be thoroughly trained, be familiar with, and possess operational experience with the equipment being used. Such training is necessary for observation and detection of other aircraft for collision avoidance purposes as outlined in GA-ASI program letter.

(2) All observers must have successfully completed applicable GA-ASI training for the UAS.

j. Training and currency records. The training and currency requirements for pilots and observers listed in this section must be documented by GA-ASI in the individual pilot/observers personnel records and made available for inspection upon request by the FAA.

7. Equipage.

a. The UAS shall be equipped with an operable Mode C transponder and two-way communications equipment allowing communications between the UA pilot, chase aircraft, observers, all UAS control stations, and Air Traffic Control.

b. The UA and chase aircraft shall be equipped with operable navigation, position, and strobe/anti-collision lights.

8. Electronic Devices. The use of electronic devices (including cell phones), other than for UA flight and mission requirements usage is prohibited.

9. Communications.

a. Before UA flights.

(1) Before conducting operations, the frequency spectrum used for operation and control of the UA must be approved by the Federal Communications Commission or other appropriate government oversight agency.

(2) Each UAS Flight operation must be coordinated by telephone with High Desert TRACON and receive a transponder code at (661) 277-3843, at least 2 hours prior to the start of the flight operation.

b. During UA flights.

(1) Upon initial contact with ATC, the PIC must indicate the experimental nature of the aircraft in accordance with 14 CFR § 91.319.

(2) The UA PIC must maintain two-way radio communication with ATC. In addition, if a chase aircraft is utilized, the chase aircraft pilot shall maintain two-way radio communication with the UA PIC and an active listening watch on the assigned ATC frequency. Should the UAS experience communication difficulty or failure, the chase aircraft will assume responsibility for two-way radio communication with ATC for the flight.

The UA shall remain within 2.5 nm and 1500' AGL of the El Mirage or Gray Butte airport when conducting local traffic pattern operations and shall remain within the specified observer distances. While in the traffic pattern instantaneous two-way radio communications with ATC are not required.

(3) The PIC and observer(s) must maintain two-way communications with each other during all operations.

(4) If communications cannot be maintained between the PIC, chase aircraft pilot, observer(s) and appropriate ATC facility, the UA will squawk 7600-transponder code, expeditiously return to its base of operations while remaining within the containment area, and conclude the flight operation.

(5) If the chase aircraft is operating more than 100ft above/below and or ½ nm laterally, of the UA, the chase aircraft PIC will advise the controlling ATC facility.

(6) The UA PIC or chase plane PIC (whichever is applicable) will notify ATC of any in flight emergency or aircraft accident as soon as practical.

(7) The PIC shall comply with all ATC instructions and/or clearances.

(8) The UA PIC shall not accept any ATC clearance requiring the use of visual separation or sequencing.

(9) Prior to flight, the UAS flight operations schedule for N406AB must be provided to Mr. Cotry Shearill, at email cotry.shearill@faa.gov, at the Van Nuys FSDO.

10. Flight Conditions.

a. Daylight operations. All flight operations must be conducted between official sunrise and sunset in visual meteorological conditions (VMC), including cloud clearance minimums as specified in § 91.155, Basic VFR weather minimums. Flight operation in instrument meteorological conditions (IMC) is not permitted.

b. Prohibitions.

(1) The UA is prohibited from aerobatic flight, that is, an intentional maneuver involving an abrupt change in the UA attitude, an abnormal acceleration, or other flight action not necessary for normal flight. (See § 91.303.)

(2) Flight operations must not involve carrying hazardous material or the dropping of any objects or external stores.

(3) The UA may not be operated by more than one control station at a time, and the control station may not be used to operate multiple UA.

c. Transponder requirements.

(1) The UA must operate an altitude encoding transponder Mode C in accordance with applicable guidelines and procedures.

(2) Chase aircraft transponders must be on standby while performing chase operations flight with the UA unless otherwise directed by ATC.

d. Transponder failure.

(1) In the event of transponder failure on either the UA or the chase aircraft, the UA must conclude all flight operations and expeditiously return to its base of operations within the prescribed limitations of this authorization.

(2) In the event of UA transponder failure, a chase aircraft will operate its transponder in Mode C.

11. Flight Termination and Lost Link Procedures.

a. Flight termination. In accordance with GA-ASI Program Letter, dated 01/20/2011, flight operations must be discontinued at any point that operation within the approved flight area(s) is breached or the UA can no longer be operated in a safe manner.

b. Lost link procedures.

(1) In the event of lost link, the UA must provide a means of automatic recovery that ensures airborne operations are predictable and that the UA remains within the flight test area. The chase aircraft or observer, all other UAS control stations, and the appropriate ATC facility will be immediately notified of the lost link condition and the expected UA response.

(a) If lost link occurs within a restricted or warning area, or the lost link procedure above takes the UA into the restricted or warning area – the aircraft will not exit the restricted or warning areas until the link is re-established.

(b) The UA lost link mission will not transit or orbit over populated areas.

(c) When outside of restricted/warning area airspace, lost link programmed procedures will avoid unexpected turn-around and/or altitude changes and will provide sufficient time to communicate and coordinate with ATC.

(d) Lost link orbit points shall not coincide with the centerline of Victor airways. The approved lost link orbit points north of El Mirage and south of Gray Butte are depicted in red and yellow on the attached operational area graphic and the coordinates are attached.

(2) The software for the aircraft lost link timer shall be set to 3 hours. If aircraft control cannot be re-established within 3 hours, the aircraft shall execute a controlled descent to the ground.

12. Maintenance and Inspection.

a. General requirements. The UAS must not be operated unless it is inspected and maintained in accordance with the General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, ASI-03767-WC-2, dated 06/09/2010 for the UA, and ASI-01176-B-2-5INSP-1 for the GCS dated 02/23/2009, or later FAA approved revision. GA-ASI must establish and maintain aircraft maintenance records (see paragraph 11(d) below).

b. Inspections. No person may operate this UAS unless within the preceding 12 calendar months it has had a condition inspection performed according to the FAA approved General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, or later FAA approved revision. The UAS must also have been found to be in a condition for safe operation. This inspection will be recorded in the UAS maintenance records as described in paragraph 11(d) below.

c. Authorized inspectors. Only those individuals trained and authorized by GA-ASI and acceptable to the FAA may perform the inspections and maintenance required by these operating limitations.

d. Maintenance and inspection records. Maintenance and inspections of the UAS must be recorded in the UAS maintenance records. The following information must be recorded:

(1) Maintenance record entries must include a description of the work performed, the date of completion for the work, the UAS total time-in-service, and the name, signature, and certificate number of the person accepting the work performed.

(2) Inspection entries must contain the following, or a similarly worded, statement: *I certify that this UAS was inspected on (date), in accordance with the scope and detail of the GA-ASI Inspection and Maintenance Program, and was found to be in a condition for safe operation.*

(3) UAS instruments and equipment required to be installed must be inspected and maintained in accordance with the requirements of the General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, or later FAA accepted revision. Any maintenance or inspection of this equipment must be recorded in the UAS maintenance records.

(4) No person may operate this UAS unless the altimeter system and transponder have been tested within the preceding 24 calendar months in accordance with § 91.411, Altimeter system and altitude reporting equipment tests and inspections, and § 91.413, ATC transponder tests and inspections. These inspections will be recorded in the UAS maintenance records.

13. Information Reporting. General Atomics shall provide the following information to donald.e.grampp@faa.gov on a monthly basis.

- a. Number of flights conducted under this certificate.
- b. Pilot duty time per flight.
- c. Unusual equipment malfunctions (hardware or software).
- d. Deviations from ATC instructions.
- e. Unintended entry into lost link flight mode that results in a course change.

14. Revisions and Other Provisions.

a. Experimental certificates, program letters, and operating limitations. The experimental certificate, FAA-accepted GA-ASI program letter, and operating limitations cannot be reissued, renewed, or revised without application being made to the Los Angeles Manufacturing Inspection District Office (LA MIDO), in coordination with AIR-200. AIR-200 will be responsible for FAA Headquarters internal coordination with the Aircraft Certification Service, Flight Standards Service, Air Traffic Organization, Office of the Chief Council, and Office of Rulemaking.

b. Certificates of waiver or authorization. GA-ASI shall immediately notify the Production and Airworthiness Division, AIR-200, and the LA MIDO, if there is any plan for requesting a Certificate of Authorization or Waiver (COA) for UAS operations during the time the experimental certificate is in effect. An entry in the aircraft logbook is required to

document that the aircraft flight authority has been changed from the experimental certificate to COA. When COA operations are concluded and the aircraft resumes flying under the experimental certificate, a record entry will be made in the aircraft logbook by an appropriately rated person to document that the aircraft is in a condition for safe operation and appropriately configured.

c. Amendments and cancellations. The provisions and limitations annotated in this operational approval may be amended or cancelled at any time as deemed necessary by the FAA.

d. Reviews of revisions. All revisions to GA-ASI FAA-approved Italian Predator INSPECTION AND MAINTENANCE PROGRAM must be reviewed and approved by the Van Nuys Flight Standards District Office.

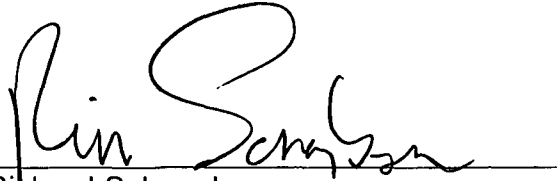
15. UAS Modifications.

a. Software and system changes. All software and system changes will be documented as part of the normal maintenance procedures and will be available for inspection. All software and system changes must be inspected and approved in accordance with the General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, ASI-03767-WC-2, dated 06/09/2010 for the UA, and ASI-01176-B-2-5INSP-1 for the GCS dated 02/23/2009, or later FAA approved revision. All software changes to the aircraft and control station are categorized as major changes, and must be provided in summary form at the time they are incorporated.

b. Major modifications. All major modifications, whether performed under the experimental certificate, COA, or other authorizations, that could potentially affect the safe operation of the system, must be documented and provided to the FAA before operating the aircraft under this certificate. Major modifications incorporated under COA or other authorizations must be provided only if the aircraft is flown under these authorizations during the effective period of the experimental certificate.

c. Submission of modifications. All information requested must be provided to AIR-200.

End of Limitations



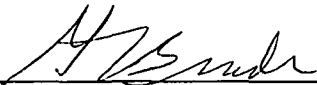
Richard Schoenberger
Los Angeles Manufacturing Inspection District Office
3960 Paramount Blvd.
Lakewood, CA 90712

1/20/2011

Date

I certify that I have read and understand the operating limitations and conditions that are a part of the special airworthiness certificate, FAA Form 8130-7, issued on 01/20/2011 for the purposes of research and development, market survey and/or crew training.

This special airworthiness certificate is issued for the Italian Predator model UPA97000-32 UAS, serial number IP03, registration number N406AB.



Gary Bender

1/20/2011

Date

Director, Flight Operations

General Atomics, Aeronautical Systems Incorporated

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.	DEFINE THE PURPOSE(S) UNDER WHICH THE AIRCRAFT IS TO BE OPERATED (14 CFR § 21.191):	1-1
2.	DEFINE THE AREA(S) WHERE FLIGHT OPERATIONS WILL BE CONDUCTED (14 CFR § 21.193(D)(3)):	2-1
3.	AIRCRAFT CONFIGURATION.....	3-1
4.	INSPECTION AND MAINTENANCE (14 CFR 21.193 (E)(3))	4-1
5.	PILOT QUALIFICATION (14 CFR § 61.3, 61.5)	5-1
6.	IDENTIFICATION AND REGISTRATION MARKING (14 CFR § 45)	6-1
7.	ATC TRANSPONDER AND ALTITUDE REPORTING SYSTEM EQUIPMENT AND USE (14 CFR § 91.215)	7-1
8.	METHOD FOR SEE AND AVOID (14 CFR § 91.113)	8-1
9.	SAFETY RISK MANAGEMENT	9-1
10.	SYSTEM CONFIGURATION	10-1
11.	SYSTEM SAFETY – FLIGHT TERMINATION AND LOST LINK.....	11-1
12.	COMMAND AND CONTROL	12-1
13.	CONTROL STATIONS	13-1
14.	CONTROL FREQUENCIES	14-1
15.	NOTES.....	15-1

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
Table 2-1	Italian Predator Program Summary (IP03).....	2-4

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
Figure 2-1	Primary Containment Area (LA Sectional Depiction).....	2-2
Figure 3-1	Typical Italian Predator UAS System Architecture	3-1
Figure 3-2	Italian Predator Three-View Dimensional Drawing	3-2
Figure 13-1	Ground Control Station Drawing	13-3
Figure 13-2	Ground Control Station Picture.....	13-4

1. DEFINE THE PURPOSE(S) UNDER WHICH THE AIRCRAFT IS TO BE OPERATED (14 CFR § 21.191):
 - 1.1 General Atomics Aeronautical Systems Inc. (GA-ASI) requests an Experimental Certification to conduct flight operations under 14 CFR 21.191(a), (c) & (f) of the Italian Predator Unmanned Aircraft System (UAS) at our Gray Butte and El Mirage Flight Operation Facilities for the following purposes:
 - 1.1.1 Research and Development – Testing new aircraft design concepts, new aircraft equipment, new aircraft installations, new aircraft operating techniques, or new uses for aircraft.
 - 1.1.2 Crew Training – Differences training as delineated in ASI-02958 Italian Predator System Upgrade Training.
 - 1.1.3 Market Surveys – Use of aircraft for purposes of conducting market surveys, sales demonstrations, and customer crew training for the Italian Air Force in the area delineated in Section 2 of this document.

2. DEFINE THE AREA(S) WHERE FLIGHT OPERATIONS WILL BE CONDUCTED
(14 CFR § 21.193(d)(3)):

2.1 Address of Base of Operation; Operations will be conducted from the GA-ASI flight operations facilities located at Gray Butte and El Mirage, CA.

Gray Butte Flight Test Facility
25500 East Avenue R-8
Palmdale, CA 93550
(661) 233-6000

El Mirage Flight Test Facility
73 El Mirage Airport Road – Suite B
Adelanto, CA 92301
(760) 388-8100

2.2 Special Provisions; Italian Predator will be operated in accordance with the special provisions specified below.

2.2.1 Italian Predator operations will be conducted in Visual Meteorological Conditions (VMC). Italian Predator shall follow FAR Part 91 cloud clearance requirements.

2.2.2 Flight operations will not be conducted in the Victorville (KVCV) Class D airspace.

2.2.3 Italian Predator UAS flight operations will be conducted in accordance with Visual Flight Rules (VFR) and with an appropriately equipped chase aircraft below 13,000 feet MSL in the following primary containment area (Figure 2-1) and within the noted coordinates below:

Latitude	Longitude
34°30.0' N	117°37.0'W
34°30.0'N	117°45.5'W
34°48.0'N	117°45.5'W
34°48.0'N	117°35.0'W
34°48.5'N	117°32.0'W
34°50.3'N	117°32.0'W
34°53.5'N	117°11.9'W
34°38.6'N	117°30.0'W
34°33.8'N	117°30.0'W

- 2.2.4 During UAS operation, two-way radio communication will be maintained between the UAS pilot/operator, chase plane, and the appropriate FAA Air Traffic controlling facility. If communication cannot be maintained by the UAS pilot / operator, chase plane, or the appropriate FAA Air Traffic controlling facility, the UAS will expeditiously return to its base of operations and the flight will be terminated.
- 2.2.5 The UAS and the chase plane will have position and strobe lights on at all times. If any of these systems on either aircraft are inoperative the flight will be canceled.
- 2.2.6 GA-ASI, and/or its representatives are responsible at all times for collision avoidance with non-participating aircraft and the safety of persons or property on the surface with respect to the Italian Predator.
- 2.2.7 From sunrise to sunset (daytime), UAS operations may be conducted from the surface (3,020') to 6,000 feet mean sea level (MSL), with the Italian Predator operator and a ground observer, who is in direct communication with the UAS operator, assisting in see-and-avoid duties for the UAS while on the ground. The ground observer is responsible for maintaining visual contact with the aircraft at all times. At no time will the aircraft exceed 2.0 nautical miles (NM) from the ground observer.
- 2.2.8 Operations above 13,000 feet MSL and/or outside the area described in paragraph 2.2.3 shall require an Instrument Flight Rules (IFR) flight plan and a chase aircraft in direct communication with Los Angeles Air Route Traffic Control Center (ZLA) or the appropriate controlling center. Italian Predator flights may be conducted in Class A airspace (above 18,000 feet) without a chase plane and will require an IFR flight plan and direct communication between the Italian Predator operator and ZLA. When operating on a flight plan and under positive control, all ATC instructions shall be adhered to.
- 2.2.9 Italian Predator UAS operations may be conducted in VFR conditions in the Barstow, Isabella, Owens, Saline, and Panamint Military Operating Areas (MOA) with permission of the controlling agencies. The Italian Predator shall be accompanied by a chase plane when operating in MOAs.
- 2.2.10 High Desert TRACON (Joshua Approach) may provide traffic advisories to the chase aircraft during the UAS operation. In the event that controller workload prohibits this service, or two-way radio communications cannot be maintained, the Italian Predator operation shall be canceled.
- 2.2.11 GA-ASI will coordinate each UAS flight with High Desert TRACON two (2) hours prior to the operation for transponder codes. The chase aircraft transponder will be on standby while in formation with the Italian Predator, but shall be turned on when separated. The Italian Predator transponder will be turned on and set to the ATC assigned code any time the Italian Predator is operating. In the case of a transponder failure on either the Italian Predator or the chase aircraft, the Italian Predator operation shall be terminated.

- 2.2.12 GA-ASI UAS operations shall be in accordance with the special notice for Unmanned Aircraft Systems (UAS) Operations in Southern California as published in the FAA Airport / Facility Directory (A/FD), Southwest U.S. volume. The A/FD provides a continuous notice of UAS activity thus covering Italian Predator operations in accordance with this letter.
- 2.2.13 All Italian Predator Pilot-In-Command (PIC) will hold, as a minimum, a valid FAA commercial pilot certificate with an instrument rating. The Italian Predator operator shall control only one UAS at any one time. The chase aircraft or ground observer will perform "see and avoid" duties for the UAS.
- 2.2.14 All Italian Predator operations will be performed under the established GA-ASI inspection and maintenance procedures.
- 2.3 Italian Predator operations will be performed under our established quality management system for engineering, production, delivery, servicing, and ground and flight operations in a manner that is continually surveyed and acceptable in accordance with established GA-ASI procedures.
- 2.4 The Italian Predator aircraft will not perform any aerobatic maneuvers and will adhere to the minimum fuel requirements contained in 14 CFR 91.151.
- 2.5 Program Summary- See table 2-1 Italian Predator Program Summary.

Table 2-1 Italian Predator Program Summary (IP03)

Estimated Flight Hours	3 hours
Estimated Number of Flights	2 flights
Duration	6 months

3. AIRCRAFT CONFIGURATION

- 3.1 The GA-ASI Italian Predator Unmanned Aircraft System (UAS) is manufactured by General Atomics Aeronautical Systems, Inc., in San Diego, California. The Italian Predator aircraft is the airborne element of the Italian Unmanned Aircraft System currently being produced by GA-ASI for the Italian Government. The complete system is comprised of multiple Italian Predator aircraft, a Ground Control Station (GCS), a C-band Line of Site (LOS) communications system, a Ku-band Satellite Communications (SATCOM) terminal (optional), and a compliment of support equipment. Figure 3-1 shows a typical Italian Predator UAS system architecture. Note: IP03 will not be flown with Ku-Band Satellite equipment under the Experimental Certification.

The Italian Predator aircraft is a Remotely Piloted Aircraft (RPA) controlled by a pilot who is located in the GCS. A pair of cameras, mounted in the nose of the aircraft, provides the pilot with a forward view using either daylight television or infrared (IR) images. Control commands are transmitted from the GCS to the aircraft by a ground-based data link terminal.

The GCS incorporates workstations that allow operators to plan missions, control and monitor the aircraft payload sensors, and exploit received images. The C-band communications system provides LOS control of the aircraft via C-band data link during launch and recovery operations and in support of local area flight operations. The Ku-band SATCOM system (optional) provides over-the-horizon control of the aircraft via Ku-band datalink and enhances the voice/data communication capabilities of the GCS.

The following figure provides identification of the Italian Predator Aircraft.

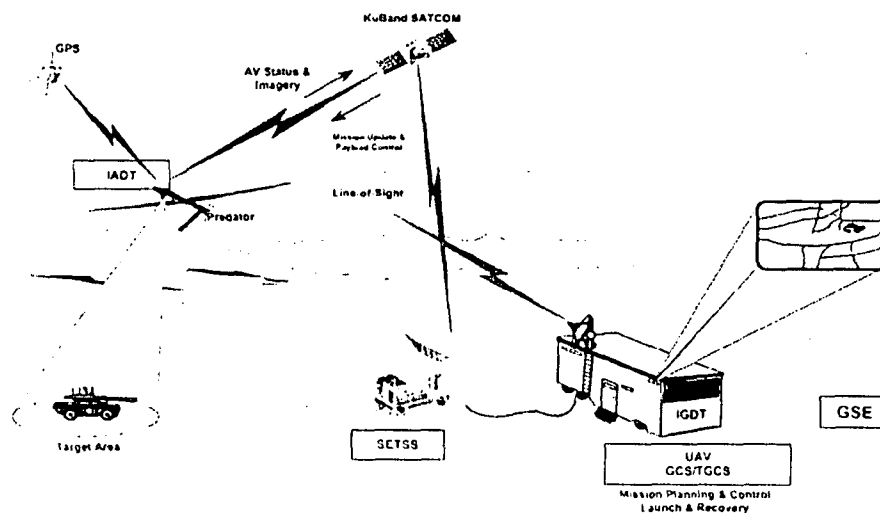


Figure 3-1 Typical Italian Predator UAS System Architecture

The aircraft is designed for long duration reconnaissance and surveillance missions. It is

capable of carrying multiple mission payloads and can be handed off to forward-deployed ground or sea based control stations.

The Italian Predator is a variant of the Predator A aircraft. Since 1995, Predator aircraft have logged over 700,000 flight hours. The current Italian Predator fleet that is operating in the field has logged a combined 6,300 flight hours.

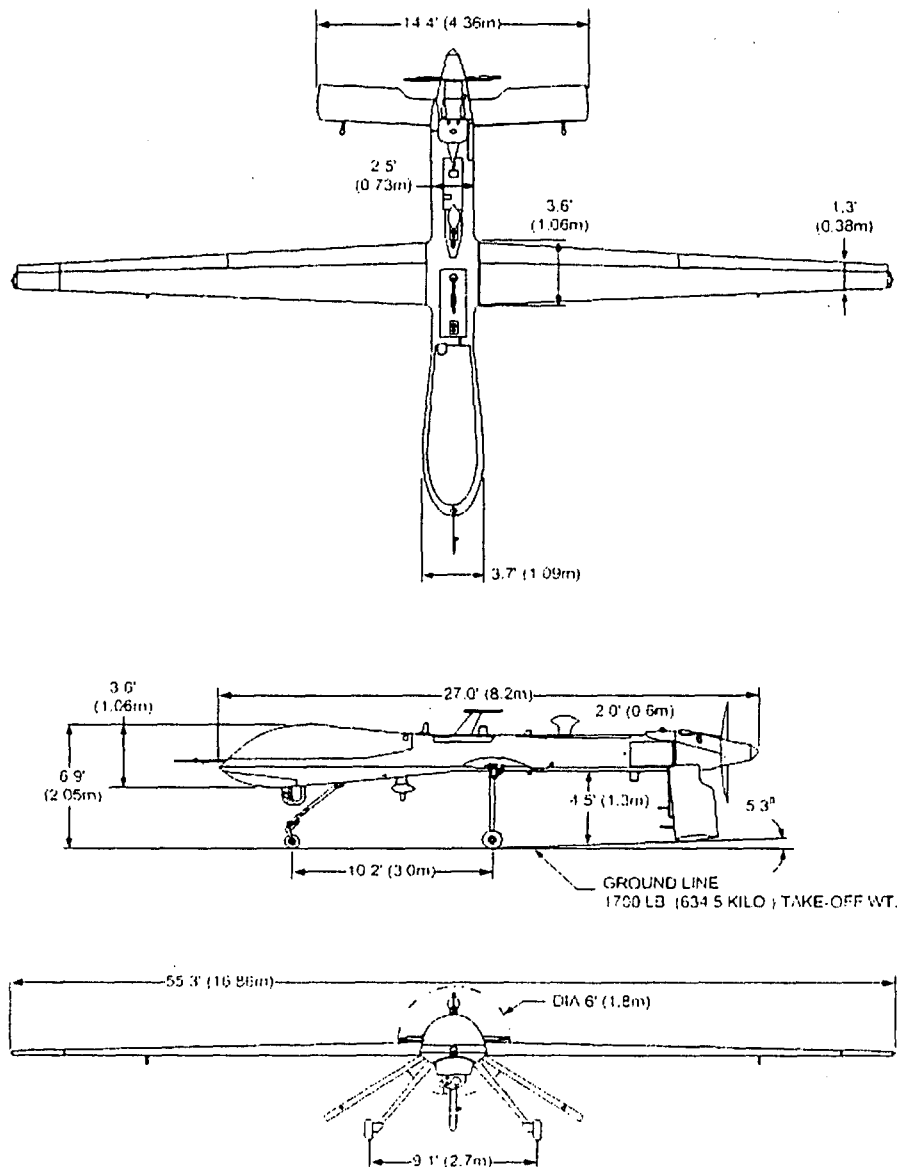


Figure 3-2 Italian Predator Three-View Dimensional Drawing

3-2

- 3.1.1 The Italian Predator UAV has a wing span of 55 feet 3 inches.
- 3.1.2 The length of the UAV is 27 feet.
- 3.1.3 The UAV is powered by a Rotax 914 fuel injected engine.
- 3.1.4 The maximum gross takeoff weight is 2,250 lb.
- 3.1.5 The forward fuel tank capacity is 390±10lb. The aft fuel tank capacity is 250±10lb. This gives a combined nominal fuel capacity of 640±20lb.
- 3.1.6 The internal payload capacity of the UAV is 450 lb.
- 3.1.7 The maximum operating ceiling of the UAV is 25,000 feet density altitude.
- 3.1.8 The UAV shall have the capacity to fly 16 hours at a range of 500 nautical miles at 15,000 ft.
- 3.1.9 The maximum maneuver speed is 100 KIAS. The never to exceed airspeed is 120 KIAS.
- 3.1.10 The Control/Data frequencies are as follows:
 - a) C-Band – Uplink 5625-5850 MHz
 - b) C-Band – Downlink 5250-5475 MHz
- 3.1.11 The UAV contains the following Guidance and Navigation equipment:
 - a) INS/GPS
 - b) Secondary GPS located within Primary Control Module

4. INSPECTION AND MAINTENANCE (14 CFR 21.193 (e)(3))

4.1 All Italian Predator operations will be performed IAW established GA-ASI inspection and maintenance procedures:

- Flight Operations Manual & Checklist
- Aircraft Maintenance Manual
- Ground Control Station Manual & Checklist
- Ground Control Station Maintenance Manual

5. PILOT QUALIFICATION (14 CFR § 61.3, 61.5)

- 5.1 Pilot qualification and flight review will be conducted IAW company procedure ASI-00009. All GA-ASI pilots are required to possess at least an FAA commercial certified pilot certificate with instrument rating. All GA-ASI pilots are required to maintain current Class II Medical Certificates. All GA-ASI pilots are required to successfully complete a formal company training program for the company aircraft type (ex. Predator A, Predator B, etc.) Company training incorporates class instruction, simulation, and flight training. All GA-ASI pilots are required to maintain flight proficiency, complete annual oral and written exams, and pass an annual flight evaluation. All GA-ASI pilots are required to maintain instrument currency in manned aircraft.
- 5.2 Ground observers are trained in Right-Of-Way Rules (14 CFR § 91.113) and Operating near Other Aircraft (14 CFR § 91.111) per the A&P Training Program/Flight Operations Support Training document – ASI-00056. In-flight observers are trained in all applicable flight operations, including the cloud clearance requirements of 14 CFR § 91.155, in accordance with the Flight Operations Procedure document – ASI-00009.

6. IDENTIFICATION AND REGISTRATION MARKING (14 CFR § 45)

6.1 An aircraft registration number: IP03: N406AB

6.2 The aircraft will be outfitted with external identification / markings in accordance with 14 CFR § 45.

7. ATC TRANSPONDER AND ALTITUDE REPORTING SYSTEM EQUIPMENT AND USE (14 CFR § 91.215)
 - 7.1 The Italian Predator unmanned aircraft system will have an altitude reporting transponder capable of Mode 1, Mode 2, Mode 3A, and Mode C sources.

8. METHOD FOR SEE AND AVOID (14 CFR § 91.113)

- 8.1 The pilot in command of the Italian Predator UAS is responsible for seeing and avoiding other traffic using real time video image displays coming from the forward looking nose camera or the EO/IR turreted surveillance camera system.
- 8.2 To assist the pilot, an observer either in a chase plane or on the ground will be used. These observers will maintain real time audio contact with the pilot.
- The task of the observer is to provide the pilot of the UAS with advisory information to enable the pilot to maneuver the UAS clear of any other traffic. At no time shall visual observers conduct their duties more than 2.0 NM laterally or 3000 feet vertically from the UAS. When a chase aircraft is utilized, it must maintain a reasonable proximity, and shall position itself relative to the UAS in such a manner to reduce the hazard of collision per 14 CFR § 91.111
- 8.3 UAS pilots and observers shall perform crew duties for only one UAS at a time. Observer's duties shall be dedicated to the task of observation only, concurrent duty as a pilot is not authorized. Ground observers are trained in Right-of-Way Rules (14 CFR § 91.113) and Operating Near Other Aircraft (14 CFR § 91.111) per the "A & P Training Program / Flight Operations Support Training" document.

9. SAFETY RISK MANAGEMENT

- 9.1 The FAA Safety Checklist shall be submitted for consideration prior to meeting with the FAA.

10. SYSTEM CONFIGURATION

10.1 The Italian Predator UA System is designed with the following elements:

10.1.1 Avionics

10.1.1.1 Primary Control Module – The aircraft is controlled by a central processor called the Primary Control Module (PCM). The PCM performs the following functions:

- Uplink command receipt, processing, distribution and execution,
- Navigation sensor receipt, processing and distribution,
- Autopilot command generation and distribution,
- Aircraft downlink telemetry data receipt, processing and distribution,
- Video data receipt, processing, and distribution,
- Changing the transponder codes automatically in case of a lost link condition.

10.1.1.2 Navigation – Nominal enroute/over-objective maintained by blended INS/GPS based navigation system.

10.1.1.3 Flight Control System – The flight control system consists of the following:

- Aileron servos (left and right),
- Flap servos (left and right),
- Tailplane servos (left and right).

10.1.1.4 Flight Data System – The Flight Data System consists of the following:

- INS/GPS Unit,
- Flight Sensor Unit (yaw, pitch, & roll gyro sensors & accelerometer),
- Angle of attack sensor,
- Outside air temperature sensor,
- Magnetometer,
- Pitot/Static system.

10.1.1.5 Video – The UAV is equipped with the following video equipment:

- Nose Cameras – The aircraft is equipped with a fixed position television camera and an IR camera mounted in the nose of the aircraft. The nose cameras point forward, looking through small, heated viewports in the nose of the fuselage.

10.1.2 Lighting Systems – The aircraft has an anti-collision and warning lighting system. The system includes the following lights:

- Strobe lights (left and right)
- Navigation lights (left and right)
- IR Beacons
- Red warning strobe light

10.1.3 Electrical/Power

The Italian Predator has a +28VDC electrical bus system derived from a dual alternator system. In addition, the power path is backed by dual batteries that are capable of supplying alternate electrical power.

10.1.4 Datalink

The datalink is maintained by either the baseline redundant C-Band Line-Of-Sight (LOS) system or a Ku-band Satellite Communication (SATCOM) system (optional) installed with the C-band equipment.

10.1.5 Communication

The Italian Predator UAS may utilize the VHF/UHF airborne communications radio. This equipment enables ATC communications at frequencies between 108MHz and 156MHz and is located in the front avionics bay. The radio is controlled from the GCS using on screen commands.

10.2 The Italian Predator ground based equipment is designed with the following systems:

10.2.1 Communication

- The Ground Datalink Terminal (GDT) provides a C-Band LOS link to communicate with the UAV.
- The SATCOM Earth Terminal Subsystem/International (SETSS) provides an all-band communications link (optional) to the UAV. The Ku-band is limited only by satellite coverage. Note: IP03 will not be flown with Ku-Band Satellite equipment under the Experimental Certification.

10.2.2 Ground Control Station

The Italian Predator UAV will be flown from a GCS or a company GCS which is backed up by an emergency generator in case of a power failure.

11. SYSTEM SAFETY – FLIGHT TERMINATION AND LOST LINK

- 11.1 Pilot controlled descent and touch down: This may be used with engine out when beyond glide range of either the El Mirage or Gray Butte recovery airfields. The pilot flies to the touch down point using the same Emergency Mission established rules but with the benefit of man-in-the-loop control to minimize hazard exposure to people on the ground, thereby enabling safety containment. This action allows the system to avoid landing in an unplanned location. For loss of alternator power and flight within the confines defined herein, there is sufficient battery capacity to enable continued powering of core systems to effect return and landing at either El Mirage or Gray Butte. There will be no Flight Termination System (FTS) installed during these flights.
- 11.2 Lost Link Mission: This contains features to prevent aircraft flyaway by flying a predetermined course within the operating area described herein to reestablish link.
- 11.3 To assist in voice communications capability for these emergency cases, backup radios are contained in the GCS. If the backup radios cannot establish communications, the crew utilizes a land/cell/sat phone and calls the appropriate controlling agency.

12. COMMAND AND CONTROL

- 12.1 The datalink is maintained by either the C-band Line-Of-Sight (LOS) system or the Ku-band Satellite Communication (SATCOM) system (optional). These systems are common to all GA-ASI UAS operations. Note: IP03 will not be flown with Ku-Band Satellite equipment under the Experimental Certification.
- 12.2 Pilot control commands and returned telemetry are conveyed via these datalink systems using a common data format.
- 12.3 Ground Datalink Terminals (GDTs) are comprised of a C-band GDT and a Ku-band GDT (optional). Maximum range of the C-band GDT gives sufficient coverage for the operating area described herein. The Ku-band SATCOM GDT is limited only by satellite coverage.

13. CONTROL STATIONS

- 13.1 Transportable Ground Control Station (TGCS): The Italian Predator aircraft will be flown by a pilot from a TGCS. The TGCS can be located in a building or in a portable shelter. The TGCS incorporates two identical side-by-side Pilot / Sensor Operator (PSO) workstations. At any given time one PSO is assigned to the Pilot mode and the other to the Sensor Operator. A centrally mounted switch, under the control of the Pilot, determines which of the PSO workstations has been assigned control of the aircraft. The switch essentially toggles the modes of the PSO stations permitting pilot control to be transferred in the case of a PSO malfunction, providing control redundancy for the pilot. The design of the PSO is primarily based on serving the pilot function. When the system is in the Sensor Operator mode the same controls and displays are functionally re-configured for sensor operation. Figure 13-1 and Figure 13-2 provide PSO lay-out views.

Both PSO stations are connected to the data links. In relation to data link operation, pilot and sensor commands are combined for uplink and the same downlink information sent to both PSO racks. The operating mode of the PSO and the selected display configuration then determines what downlink information is displayed.

The aircraft is primarily operated real-time by the pilot (pilot-in-the-loop) and is also capable of flying pre-programmed missions. The aircraft can be flown line-of-sight with the TGCS utilizing the C-Band data link or it can be operated beyond line-of-sight with the Ku-SATCOM data link (optional). The pilot maintains contact with Air Traffic Control (ATC) via an VHF/UHF radio installed in the aircraft (if SATCOM equipment is installed); otherwise the pilot will maintain contact with ATC via UHF/VHF radio in the TGCS. The Pilot headset audio (microphone and ear phones) is conveyed to the aircraft radio via the data link. Alternate ATC communications (when SATCOM equipment is not installed) are available through two UHF/VHF radios installed in the TGCS or through the chase aircraft.

GA-ASI will utilize a company GCS in the case that the TGCS is not available. The TGCS and GCS are of similar construction and have identical functionality.



- 13.2 Pilot Configuration - To provide the pilot's control function, the display and control features of the PSO station are described in the following:
- 13.2.1 Upper Video Screen – The Upper Video Screen displays a moving symbol of the aircraft over a map (Tracker Display). This enables the pilot to monitor and modify the aircraft's flight plan.
- 13.2.2 Lower Video Screen – The Lower Video Screen displays imagery capture by a fixed field-of-view nose camera. The nose camera view is the background or “underlay” of information presented on the Lower Video Screen. The overlay to the nose camera video is a HUD style format that shows primary aircraft system operational and performance parameters. The principle information displayed in the HUD is: Angle of Attack, Pitch Angle, Air Speed, Vertical Speed, Engine Performance Parameters, Horizon, distance from the Ground Data Terminal, Gear Position, Current Barometer Setting, Heading, Yaw Rate, and Center of the Field of View. The Lower Video Screen thereby supports the pilot's responsibilities of Primary Aircraft System Monitoring and Performing Takeoffs and Landings.



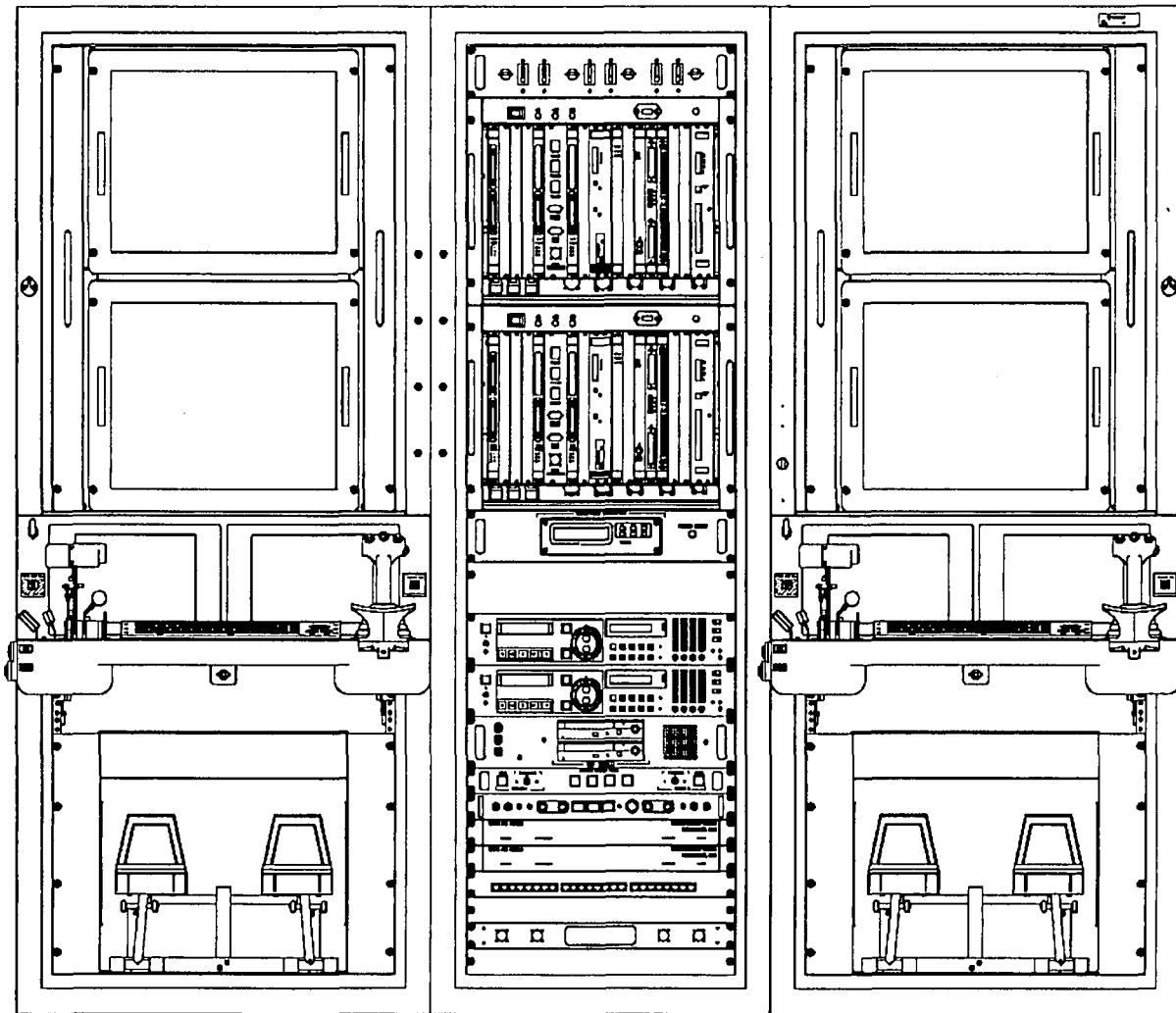


Figure 13-1 Ground Control Station Drawing

- 13.2.3 Headset / Microphone Audio – The headset and microphone operate the same as in manned aircraft. The headset enables the pilot to communicate with the flight crew, ATC, and other aircraft pilots. In addition to aerial communications, the headset also enables the pilot to communicate with ground crew equipped with similar headsets out on the flight line.

- 13.2.4 Flight Controls – Pilot control is performed through a console-mounted joystick for pitch and roll commands, and rudder pedals with embedded foot brake controls. Rudder pedal action jointly controls the rudders and nose wheel steering with gear down and the brake function permits differential control of the main landing gear brakes. In addition, the console also has control levers for engine power and flap control. Buttons are also located on throttle and joystick controls for related mode selection and ancillary controls. Landing gear retraction and deployment are activated through a joystick button and trigger switch interlocked with airspeed limits to prevent inadvertent ground retraction.

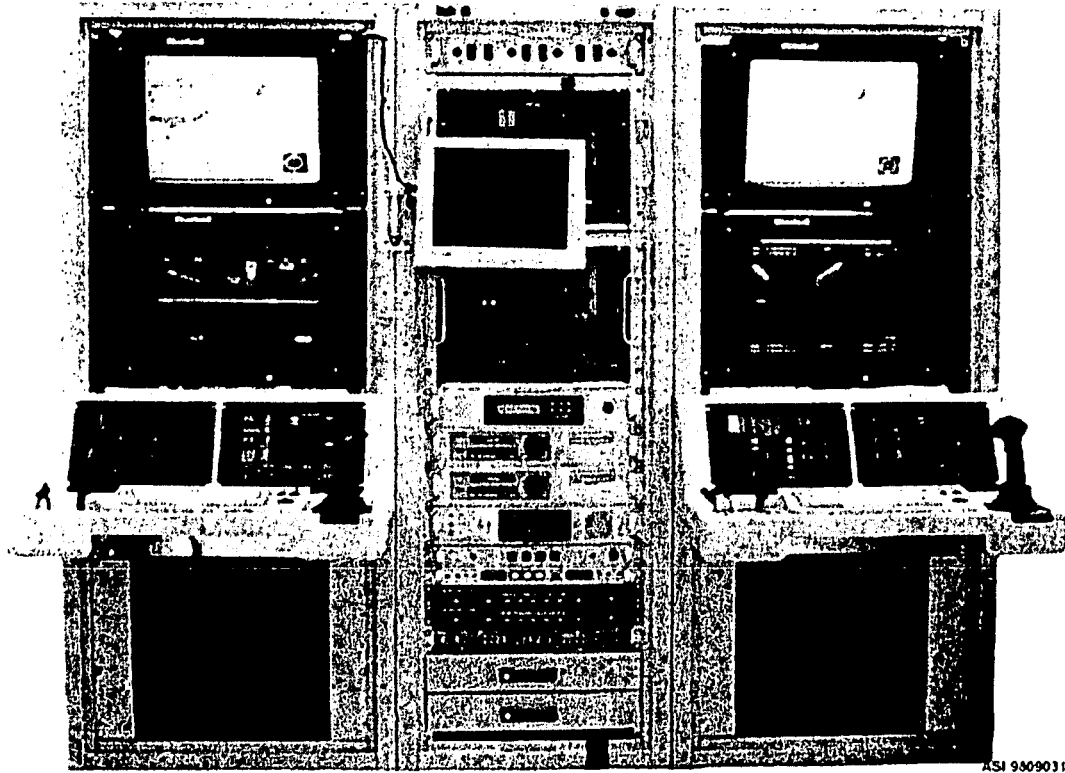


Figure 13-2 Ground Control Station Picture

- 13.2.5 Keyboard – The keyboard is used in conjunction with the flight controls for overall aircraft system control. Information entered via the keyboard may include waypoints for flight path navigation, radio frequencies for communication, etc. In addition to entering information, the keyboard is also used to select and configure aircraft systems as required.
- 13.2.6 Aircraft Control Switch – The aircraft control switch determines which of the two flight crew positions has active control of the aircraft. The switch is located within ready access of the pilot. The aircraft control switch enables the pilot to designate the PSO workstation to perform all the vehicle control and monitoring activities.

- 13.2.7 Cumulative System – The integrated system (including information obtained from the payload operator and system engineer) provides the pilot with situational awareness. Situational awareness supports all the pilot's responsibilities: Pilotage, communications, takeoffs, landings, primary aircraft system monitoring, and configuration.

14. CONTROL FREQUENCIES

- 14.1 The Italian Predator aircraft is controlled by either a C-band line-of-sight (LOS) or a Ku-band over-the-horizon Satellite Communications (SATCOM) data-link system (optional). Control signals are processed by the PSO workstation and sent to either the C-band Ground Data Terminal (GDT) or the Ku-band SATCOM GDT for transmission to the aircraft. Note: IP03 will not be flown with Ku-Band Satellite equipment under the Experimental Certification.

15. NOTES

15.1 List of Acronyms

The following is an alphabetical listing of acronyms used in this document.

A&P	Airframe and Powerplant
ADT	Air Data Terminal
A/FD	Airport / Facility Directory
AGL	Above Ground Level
ATC	Air Traffic Control
C	Centigrade
CFR	Code of Federal Regulations
CG	Center of Gravity
COTS	Commercial-Off-the-Shelf
EO/IR	Electro-Optical/Infrared
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
ft	Feet
g	Gravity
GA-ASI	General Atomics Aeronautical Systems, Incorporated
GCS	Ground Control Station
GDT	Ground Data Terminal
GPS	Global Positioning System
GSE	Ground Support Equipment
HUD	Heads-Up Display
IAW	In accordance with
I/O	Input/Output
IFR	Instrument Flight Rules
INS/GPS	Inertial Navigation System/Global Positioning System
IR	Infrared
Kbps	Kilo Bits Per Second
KIAS	Knots Indicated Airspeed
kW	Kilo Watts
lb	Pound

LOS	Line-of-Sight
LRU	Line Replaceable Unit
Mbps	Mega Bits Per Second
MHz	Mega Hertz
MOA	Military Operating Areas
MSL	Mean Sea Level
N/A	Not Applicable
NM	Nautical Miles
PCM	Primary Control Module
PIC	Pilot In Command
PSO	Pilot/Sensor Operator
RPA	Remotely Piloted Vehicle
RPM	Revolutions Per Minute
SADT	Satellite Air Data Terminal
SATCOM	Satellite Communication
sec	Seconds
SETSS	SATCOM Earth Terminal Subsystem/International
SIL	Systems Integration Laboratory
TGCS	Transportable Ground Control Station
TRACON	Traffic Control
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
UHF	Ultra-High Frequency
VCR	Video Cassette Recorder
VDC	Volts Direct Current
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions

1"

h

FAA FORM 8130-6, APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

Form Approved O.M.B. No. 2120-0018
12/31/2010

 U.S. Department of Transportation Federal Aviation Administration		APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE		INSTRUCTIONS - Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use attachment. For special flight permits complete Sections II, VI and VII as applicable.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		1. REGISTRATION MARK N406AB		2. AIRCRAFT BUILDER'S NAME (Make) General Atomics, ASI																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		3. AIRCRAFT MODEL DESIGNATION UPA 97000-32		4. YR. MFR. 2004																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		5. AIRCRAFT SERIAL NO. IP03		6. ENGINE BUILDER'S NAME (Make) Rotax																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
7. ENGINE MODEL DESIGNATION 914UL2		8. NUMBER OF ENGINES One (1)		9. PROPELLER BUILDER'S NAME (Make) General Atomics, ASI																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
10. PROPELLER MODEL DESIGNATION UPA42430-11		11. AIRCRAFT IS (Check if applicable) <input checked="" type="checkbox"/> IMPORT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
APPLICATION IS HEREBY MADE FOR: (Check applicable items)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">A</td> <td style="width: 5%;">1</td> <td style="width: 40%;">STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category)</td> <td style="width: 10%;"><input type="checkbox"/></td> <td style="width: 10%;">NORMAL</td> <td style="width: 10%;"><input type="checkbox"/></td> <td style="width: 10%;">UTILITY</td> <td style="width: 10%;"><input type="checkbox"/></td> <td style="width: 10%;">ACROBATIC</td> <td style="width: 10%;"><input type="checkbox"/></td> <td style="width: 10%;">TRANSPORT</td> <td style="width: 10%;"><input type="checkbox"/></td> <td style="width: 10%;">COMMUTER</td> <td style="width: 10%;"><input type="checkbox"/></td> <td style="width: 10%;">BALLOON</td> <td style="width: 10%;"><input type="checkbox"/></td> <td style="width: 10%;">OTHER</td> </tr> </table>						A	1	STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category)	<input type="checkbox"/>	NORMAL	<input type="checkbox"/>	UTILITY	<input type="checkbox"/>	ACROBATIC	<input type="checkbox"/>	TRANSPORT	<input type="checkbox"/>	COMMUTER	<input type="checkbox"/>	BALLOON	<input type="checkbox"/>	OTHER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
A	1	STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category)	<input type="checkbox"/>	NORMAL	<input type="checkbox"/>	UTILITY	<input type="checkbox"/>	ACROBATIC	<input type="checkbox"/>	TRANSPORT	<input type="checkbox"/>	COMMUTER	<input type="checkbox"/>	BALLOON	<input type="checkbox"/>	OTHER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">B</td> <td style="width: 5%;"><input checked="" type="checkbox"/></td> <td colspan="14">SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)</td> </tr> </table>						B	<input checked="" type="checkbox"/>	SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
B	<input checked="" type="checkbox"/>	SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">7</td> <td colspan="11">PRIMARY</td> </tr> <tr> <td style="width: 5%;">9</td> <td colspan="11">LIGHT-SPORT (Indicate Class)</td> </tr> <tr> <td style="width: 5%;">2</td> <td colspan="11">LIMITED</td> </tr> <tr> <td style="width: 5%;">5</td> <td colspan="11">PROVISIONAL (Indicate Class)</td> </tr> <tr> <td style="width: 5%;">3</td> <td colspan="11">RESTRICTED (Indicate operation(s) to be conducted)</td> </tr> <tr> <td style="width: 5%;">4</td> <td colspan="11"><input checked="" type="checkbox"/> EXPERIMENTAL (Indicate operation(s) to be conducted)</td> </tr> <tr> <td style="width: 5%;">8</td> <td colspan="11">SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)</td> </tr> </table>						7	PRIMARY											9	LIGHT-SPORT (Indicate Class)											2	LIMITED											5	PROVISIONAL (Indicate Class)											3	RESTRICTED (Indicate operation(s) to be conducted)											4	<input checked="" type="checkbox"/> EXPERIMENTAL (Indicate operation(s) to be conducted)											8	SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
7	PRIMARY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
9	LIGHT-SPORT (Indicate Class)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
2	LIMITED																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
5	PROVISIONAL (Indicate Class)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
3	RESTRICTED (Indicate operation(s) to be conducted)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
4	<input checked="" type="checkbox"/> EXPERIMENTAL (Indicate operation(s) to be conducted)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
8	SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">1</td> <td colspan="5">CLASS I</td> <td colspan="5"></td> </tr> <tr> <td style="width: 5%;">2</td> <td colspan="5">CLASS II</td> <td colspan="5"></td> </tr> <tr> <td style="width: 5%;">1</td> <td colspan="5">AGRICULTURE AND PEST CONTROL</td> <td style="width: 5%;">2</td> <td colspan="5">AERIAL SURVEY</td> <td style="width: 5%;">3</td> <td colspan="5">AERIAL ADVERTISING</td> </tr> <tr> <td style="width: 5%;">4</td> <td colspan="5">FOREST (Wildlife Conservation)</td> <td style="width: 5%;">5</td> <td colspan="5">PATROLLING</td> <td style="width: 5%;">6</td> <td colspan="5">WEATHER CONTROL</td> </tr> <tr> <td style="width: 5%;">0</td> <td colspan="15">OTHER (Specify)</td> </tr> <tr> <td style="width: 5%;">1</td> <td colspan="5"><input checked="" type="checkbox"/> RESEARCH AND DEVELOPMENT</td> <td style="width: 5%;">2</td> <td colspan="5">AMATEUR BUILT</td> <td style="width: 5%;">3</td> <td colspan="5">EXHIBITION</td> </tr> <tr> <td style="width: 5%;">4</td> <td colspan="5">AIR RACING</td> <td style="width: 5%;">5</td> <td colspan="5"><input checked="" type="checkbox"/> CREW TRAINING</td> <td style="width: 5%;">6</td> <td colspan="5"><input checked="" type="checkbox"/> MARKET SURVEY</td> </tr> <tr> <td style="width: 5%;">0</td> <td colspan="15">TO SHOW COMPLIANCE WITH THE CFR</td> </tr> <tr> <td style="width: 5%;">7</td> <td colspan="15">OPERATING (Primary Category) KIT BUILT AIRCRAFT</td> </tr> <tr> <td style="width: 5%;">8</td> <td colspan="5" rowspan="3">OPERATING LIGHT-SPORT</td> <td style="width: 5%;">8A</td> <td colspan="10">Existing Aircraft without an airworthiness certificate & do not meet § 103.1</td> </tr> <tr> <td style="width: 5%;">8B</td> <td colspan="10">Operating Light-Sport Kit-Built</td> </tr> <tr> <td style="width: 5%;">8C</td> <td colspan="10">Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190</td> </tr> <tr> <td style="width: 5%;">1</td> <td colspan="15">FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE</td> </tr> <tr> <td style="width: 5%;">2</td> <td colspan="15">EVACUATION FROM AREA OF IMPENDING DANGER</td> </tr> <tr> <td style="width: 5%;">3</td> <td colspan="15">OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT</td> </tr> <tr> <td style="width: 5%;">4</td> <td colspan="5">DELIVERING OR EXPORTING</td> <td style="width: 5%;">5</td> <td colspan="10">PRODUCTION FLIGHT TESTING</td> </tr> <tr> <td style="width: 5%;">6</td> <td colspan="15">CUSTOMER DEMONSTRATION FLIGHTS</td> </tr> </table>						1	CLASS I										2	CLASS II										1	AGRICULTURE AND PEST CONTROL					2	AERIAL SURVEY					3	AERIAL ADVERTISING					4	FOREST (Wildlife Conservation)					5	PATROLLING					6	WEATHER CONTROL					0	OTHER (Specify)															1	<input checked="" type="checkbox"/> RESEARCH AND DEVELOPMENT					2	AMATEUR BUILT					3	EXHIBITION					4	AIR RACING					5	<input checked="" type="checkbox"/> CREW TRAINING					6	<input checked="" type="checkbox"/> MARKET SURVEY					0	TO SHOW COMPLIANCE WITH THE CFR															7	OPERATING (Primary Category) KIT BUILT AIRCRAFT															8	OPERATING LIGHT-SPORT					8A	Existing Aircraft without an airworthiness certificate & do not meet § 103.1										8B	Operating Light-Sport Kit-Built										8C	Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190										1	FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE															2	EVACUATION FROM AREA OF IMPENDING DANGER															3	OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT															4	DELIVERING OR EXPORTING					5	PRODUCTION FLIGHT TESTING										6	CUSTOMER DEMONSTRATION FLIGHTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
1	CLASS I																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
2	CLASS II																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1	AGRICULTURE AND PEST CONTROL					2	AERIAL SURVEY					3	AERIAL ADVERTISING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
4	FOREST (Wildlife Conservation)					5	PATROLLING					6	WEATHER CONTROL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
0	OTHER (Specify)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1	<input checked="" type="checkbox"/> RESEARCH AND DEVELOPMENT					2	AMATEUR BUILT					3	EXHIBITION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
4	AIR RACING					5	<input checked="" type="checkbox"/> CREW TRAINING					6	<input checked="" type="checkbox"/> MARKET SURVEY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
0	TO SHOW COMPLIANCE WITH THE CFR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
7	OPERATING (Primary Category) KIT BUILT AIRCRAFT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
8	OPERATING LIGHT-SPORT					8A	Existing Aircraft without an airworthiness certificate & do not meet § 103.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
8B						Operating Light-Sport Kit-Built																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
8C						Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1	FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
2	EVACUATION FROM AREA OF IMPENDING DANGER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
3	OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
4	DELIVERING OR EXPORTING					5	PRODUCTION FLIGHT TESTING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
6	CUSTOMER DEMONSTRATION FLIGHTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">C</td> <td style="width: 5%;">6</td> <td colspan="14">MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)</td> </tr> </table>						C	6	MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
C	6	MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="15">A. REGISTERED OWNER (As shown on certificate of aircraft registration)</td> <td colspan="15">IF DEALER, CHECK HERE <input type="checkbox"/></td> </tr> <tr> <td colspan="15">NAME</td> <td colspan="15">ADDRESS</td> </tr> <tr> <td colspan="30">B. AIRCRAFT CERTIFICATION BASIS (Check applicable blocks and complete items as indicated)</td> </tr> <tr> <td colspan="15">AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.)</td> <td colspan="15"><input checked="" type="checkbox"/> AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)</td> </tr> <tr> <td colspan="15">AIRCRAFT LISTING (Give page number(s))</td> <td colspan="15">SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated)</td> </tr> <tr> <td colspan="15">N/A</td> <td colspan="15">N/A</td> </tr> <tr> <td colspan="30">C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS</td> </tr> <tr> <td colspan="15"><input checked="" type="checkbox"/> CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417</td> <td colspan="10">TOTAL AIRFRAME HOURS</td> <td colspan="5">EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed)</td> </tr> <tr> <td colspan="15"></td> <td colspan="10">1067.4</td> <td colspan="5">0.9</td> </tr> <tr> <td colspan="30">D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.</td> </tr> <tr> <td colspan="10">DATE OF APPLICATION</td> <td colspan="10">NAME AND TITLE (Print or type)</td> <td colspan="10">SIGNATURE</td> </tr> <tr> <td colspan="10">Aug 11, 2010</td> <td colspan="10">Gary Bender, Director of Flight Operations</td> <td colspan="10"></td> </tr> <tr> <td colspan="30">E. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: (Complete the section only if 14 CFR part 21.183(d) applies.)</td> </tr> <tr> <td colspan="5">2</td> <td colspan="10">14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)</td> <td colspan="5">3</td> <td colspan="10">CERTIFICATED MECHANIC (Give Certificate No.)</td> <td colspan="5">6</td> <td colspan="10">CERTIFICATED REPAIR STATION (Give Certificate No.)</td> </tr> <tr> <td colspan="5">5</td> <td colspan="25">AIRCRAFT MANUFACTURER (Give name or firm)</td> </tr> <tr> <td colspan="10">DATE</td> <td colspan="10">TITLE</td> <td colspan="10">SIGNATURE</td> </tr> <tr> <td colspan="10"></td> <td colspan="10"></td> <td colspan="10"></td> </tr> <tr> <td colspan="30"> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="15">(Check ALL applicable block items A and B)</td> <td colspan="15">THE CERTIFICATE REQUESTED</td> </tr> <tr> <td colspan="15">A. I find that the aircraft described in Section I or VII meets requirements for</td> <td colspan="15"><input checked="" type="checkbox"/> AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE</td> </tr> <tr> <td colspan="15">B. Inspection for a special permit under Section VII was conducted by:</td> <td colspan="15">FAA INSPECTOR</td> <td colspan="15">FAA DESIGNEE</td> </tr> <tr> <td colspan="15"></td> <td colspan="15">CERTIFICATE HOLDER UNDER</td> <td colspan="15">14 CFR part 65</td> <td colspan="15">14 CFR part 121 OR 135</td> <td colspan="15">14 CFR part 145</td> </tr> <tr> <td colspan="10">DATE</td> <td colspan="10">MIDO/FSDO Office</td> <td colspan="10">DESIGNEE'S SIGNATURE AND NO.</td> <td colspan="10">FAA INSPECTOR'S SIGNATURE</td> </tr> <tr> <td colspan="10">Aug 11, 2010</td> <td colspan="10">ANN-108</td> <td colspan="10">4</td> <td colspan="10"></td> </tr> </table> </td> </tr> </table>						A. REGISTERED OWNER (As shown on certificate of aircraft registration)															IF DEALER, CHECK HERE <input type="checkbox"/>															NAME															ADDRESS															B. AIRCRAFT CERTIFICATION BASIS (Check applicable blocks and complete items as indicated)																														AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.)															<input checked="" type="checkbox"/> AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)															AIRCRAFT LISTING (Give page number(s))															SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated)															N/A															N/A															C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS																														<input checked="" type="checkbox"/> CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417															TOTAL AIRFRAME HOURS										EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed)																				1067.4										0.9					D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.																														DATE OF APPLICATION										NAME AND TITLE (Print or type)										SIGNATURE										Aug 11, 2010										Gary Bender, Director of Flight Operations																				E. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: (Complete the section only if 14 CFR part 21.183(d) applies.)																														2					14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)										3					CERTIFICATED MECHANIC (Give Certificate No.)										6					CERTIFICATED REPAIR STATION (Give Certificate No.)										5					AIRCRAFT MANUFACTURER (Give name or firm)																									DATE										TITLE										SIGNATURE																																								<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="15">(Check ALL applicable block items A and B)</td> <td colspan="15">THE CERTIFICATE REQUESTED</td> </tr> <tr> <td colspan="15">A. I find that the aircraft described in Section I or VII meets requirements for</td> <td colspan="15"><input checked="" type="checkbox"/> AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE</td> </tr> <tr> <td colspan="15">B. Inspection for a special permit under Section VII was conducted by:</td> <td colspan="15">FAA INSPECTOR</td> <td colspan="15">FAA DESIGNEE</td> </tr> <tr> <td colspan="15"></td> <td colspan="15">CERTIFICATE HOLDER UNDER</td> <td colspan="15">14 CFR part 65</td> <td colspan="15">14 CFR part 121 OR 135</td> <td colspan="15">14 CFR part 145</td> </tr> <tr> <td colspan="10">DATE</td> <td colspan="10">MIDO/FSDO Office</td> <td colspan="10">DESIGNEE'S SIGNATURE AND NO.</td> <td colspan="10">FAA INSPECTOR'S SIGNATURE</td> </tr> <tr> <td colspan="10">Aug 11, 2010</td> <td colspan="10">ANN-108</td> <td colspan="10">4</td> <td colspan="10"></td> </tr> </table>																														(Check ALL applicable block items A and B)															THE CERTIFICATE REQUESTED															A. I find that the aircraft described in Section I or VII meets requirements for															<input checked="" type="checkbox"/> AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE															B. Inspection for a special permit under Section VII was conducted by:															FAA INSPECTOR															FAA DESIGNEE																														CERTIFICATE HOLDER UNDER															14 CFR part 65															14 CFR part 121 OR 135															14 CFR part 145															DATE										MIDO/FSDO Office										DESIGNEE'S SIGNATURE AND NO.										FAA INSPECTOR'S SIGNATURE										Aug 11, 2010										ANN-108										4																			
A. REGISTERED OWNER (As shown on certificate of aircraft registration)															IF DEALER, CHECK HERE <input type="checkbox"/>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
NAME															ADDRESS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
B. AIRCRAFT CERTIFICATION BASIS (Check applicable blocks and complete items as indicated)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.)															<input checked="" type="checkbox"/> AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
AIRCRAFT LISTING (Give page number(s))															SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
N/A															N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
<input checked="" type="checkbox"/> CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417															TOTAL AIRFRAME HOURS										EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
															1067.4										0.9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
DATE OF APPLICATION										NAME AND TITLE (Print or type)										SIGNATURE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Aug 11, 2010										Gary Bender, Director of Flight Operations																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
E. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: (Complete the section only if 14 CFR part 21.183(d) applies.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2					14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)										3					CERTIFICATED MECHANIC (Give Certificate No.)										6					CERTIFICATED REPAIR STATION (Give Certificate No.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
5					AIRCRAFT MANUFACTURER (Give name or firm)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
DATE										TITLE										SIGNATURE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="15">(Check ALL applicable block items A and B)</td> <td colspan="15">THE CERTIFICATE REQUESTED</td> </tr> <tr> <td colspan="15">A. I find that the aircraft described in Section I or VII meets requirements for</td> <td colspan="15"><input checked="" type="checkbox"/> AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE</td> </tr> <tr> <td colspan="15">B. Inspection for a special permit under Section VII was conducted by:</td> <td colspan="15">FAA INSPECTOR</td> <td colspan="15">FAA DESIGNEE</td> </tr> <tr> <td colspan="15"></td> <td colspan="15">CERTIFICATE HOLDER UNDER</td> <td colspan="15">14 CFR part 65</td> <td colspan="15">14 CFR part 121 OR 135</td> <td colspan="15">14 CFR part 145</td> </tr> <tr> <td colspan="10">DATE</td> <td colspan="10">MIDO/FSDO Office</td> <td colspan="10">DESIGNEE'S SIGNATURE AND NO.</td> <td colspan="10">FAA INSPECTOR'S SIGNATURE</td> </tr> <tr> <td colspan="10">Aug 11, 2010</td> <td colspan="10">ANN-108</td> <td colspan="10">4</td> <td colspan="10"></td> </tr> </table>																														(Check ALL applicable block items A and B)															THE CERTIFICATE REQUESTED															A. I find that the aircraft described in Section I or VII meets requirements for															<input checked="" type="checkbox"/> AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE															B. Inspection for a special permit under Section VII was conducted by:															FAA INSPECTOR															FAA DESIGNEE																														CERTIFICATE HOLDER UNDER															14 CFR part 65															14 CFR part 121 OR 135															14 CFR part 145															DATE										MIDO/FSDO Office										DESIGNEE'S SIGNATURE AND NO.										FAA INSPECTOR'S SIGNATURE										Aug 11, 2010										ANN-108										4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
(Check ALL applicable block items A and B)															THE CERTIFICATE REQUESTED																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
A. I find that the aircraft described in Section I or VII meets requirements for															<input checked="" type="checkbox"/> AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
B. Inspection for a special permit under Section VII was conducted by:															FAA INSPECTOR															FAA DESIGNEE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
															CERTIFICATE HOLDER UNDER															14 CFR part 65															14 CFR part 121 OR 135															14 CFR part 145																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
DATE										MIDO/FSDO Office										DESIGNEE'S SIGNATURE AND NO.										FAA INSPECTOR'S SIGNATURE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Aug 11, 2010										ANN-108										4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

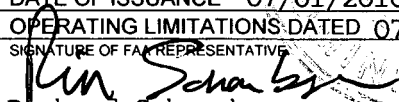
VI. PRODUCTION FLIGHT TESTING	A. MANUFACTURER				
	NAME		ADDRESS		
	B. PRODUCTION BASIS <i>(Check applicable item)</i>				
	<input type="checkbox"/> PRODUCTION CERTIFICATE <i>(Give production certificate number)</i>				
	<input type="checkbox"/> TYPE CERTIFICATE ONLY				
	<input type="checkbox"/> APPROVED PRODUCTION INSPECTION SYSTEM				
C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS					
DATE OF APPLICATION		NAME AND TITLE <i>(Print or Type)</i>		SIGNATURE	
VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST	A. DESCRIPTION OF AIRCRAFT		REGISTERED OWNER		
	BUILDER <i>(Make)</i>		MODEL		
	SERIAL NUMBER		REGISTRATION MARK		
	B. DESCRIPTION OF FLIGHT		CUSTOMER DEMONSTRATION FLIGHTS <input type="checkbox"/> <i>(Check if applicable)</i>		
	FROM		TO		
	VIA		DEPARTURE DATE	DURATION	
	C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT				
	<input type="checkbox"/> PILOT		<input type="checkbox"/> CO-PILOT	<input type="checkbox"/> FLIGHT ENGINEER	<input type="checkbox"/> OTHER <i>(Specify)</i>
	D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS:				
	E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION: <i>(Use attachment if necessary)</i>				
	F. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 <u>et seq.</u> and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is safe for the flight described.				
	DATE		NAME AND TITLE <i>(Print or Type)</i>		SIGNATURE
VIII. AIRWORTHINESS DOCUMENTATION (FAADESIGNEE use only)	<input checked="" type="checkbox"/>	A. Operating Limitations and Markings in Compliance with 14 CFR Section 91.9, as applicable.	G. Statement of Conformity, FAA Form 8130-9 <i>(Attach when required)</i>		
	<input checked="" type="checkbox"/>	B. Current Operating Limitations Attached	H. Foreign Airworthiness Certification for Import Aircraft <i>(Attach when required)</i>		
	<input checked="" type="checkbox"/>	C. Data, Drawings, Photographs, etc. <i>(Attach when required)</i>	<input checked="" type="checkbox"/>	I. Previous Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.191(a)(b)(c) CAR (Original Attached)	
	<input checked="" type="checkbox"/>	D. Current Weight and Balance information Available in Aircraft		J. Current Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.191(a)(b)(c) (Copy Attached)	
		E. Major Repair and Alteration, FAA Form 337 <i>(Attach when required)</i>	<input checked="" type="checkbox"/>	K. Light-Sport Aircraft Statement of Compliance, FAA Form 8130-15 <i>(Attach when required)</i>	
	<input checked="" type="checkbox"/>	F. This inspection Recorded in Aircraft Records			

10/10/10
10/10/10

10/10/10
10/10/10
10/10/10
10/10/10

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION EXPERIMENTAL (UNMANNED AIRCRAFT)	
	PURPOSE Research and Dev/Market Surv/Crew Training	
B	MANUFACTURER	NAME N/A
		ADDRESS N/A
C	FLIGHT	FROM N/A
		TO N/A
D	N- 406AB	SERIAL NO. IP03
	BUILDER General Atomics ASI	MODEL UPA97000-32
E	DATE OF ISSUANCE 07/01/2010	EXPIRY 06/30/2011
	OPERATING LIMITATIONS DATED 07/01/2010 ARE PART OF THIS CERTIFICATE	
	SIGNATURE OF FAA REPRESENTATIVE  Richard Schoenberger	DESIGNATION OR OFFICE NO. ANM-108L

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code, (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production flight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire; and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the Administrator as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.



GENERAL ATOMICS AERONAUTICAL

AIRCRAFT MAINTENANCE RECORD

AIRCRAFT/EQUIPMENT S/N IP03	FLIGHT #	ORIGINATOR	DISC	DATE 8/11/2010	NCR #	FDR #
---------------------------------------	----------	------------	------	--------------------------	-------	-------

DISCREPANCY:

CORRECTIVE ACTION: CAMS SCREEN 122 TAG NUMBER IS THE AFTO 350 TAG NUMBER:

I FIND THIS UAS MEETS THE REQ'S FOR THE CERTIFICATION REQUESTED AND HAVE ISSUED A SPECIAL AW/CERT DTD: 8/11/2010 THE OPERATION OF THIS UAS IS CONTINGENT UPON GA-ASI COMPLIANCE WITH PROGRAM LETTER DATED: 5/18/2010 AND THE APPLICABLE OPERATING LIMITATIONS FOR THIS UAS DATED: 8/11/2010 A NEW CONDITION INSP IS REQ'D PRIOR TO ISSUANCE OF ANOTHER SPECIAL AW/CERT.

DISPOSITION:

I certify that this UAS was inspected on _____ in accordance with the scope and detail of the GA-ASI Inspection and Maintenance Program, and was found to be in a condition for safe operation.
Total time in service _____
Name _____
Signature _____

[Signature]
RJ Winn
ASI/FAA/LA-MIDO

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE		SERIAL TRACK #	HOURS/ CYCLES
A	CATEGORY/DESIGNATION: EXPERIMENTAL (UNMANNED AIRCRAFT)		
B	PURPOSE: Research and Dev/Market Surv/Crew Training		
C	MANUFACTURER: NAME N/A		
D	FACTURER: ADDRESS N/A		
E	FLIGHT: FROM UN/A TO N/A		
	D N-406AB SERIAL NO IP03	SERIAL TRACK #	HOURS/ CYCLES
A	BUILDER General Atomics ASI MODEL UPA97000-32		
B	DATE OF ISSUANCE 08/11/10 EXPIRY 12/31/10		
C	OPERATING LIMITATIONS DATED: 08/11/10 ARE PART OF THIS CERTIFICATE		
D	E SIGNATURE OF FAA REPRESENTATIVE Robert Winn DESIGNATION OR OFFICE NO ANM-108L		
E	Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR)		

AVION
PRI

FAA Form 8130-7 (07/04)

SEE REVERSE SIDE

NSN: 0052-00-693-4000


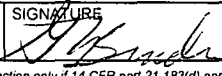
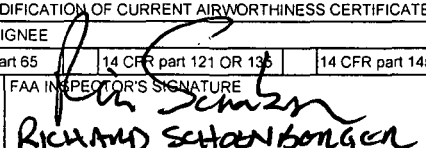
ENGINE HOBBS
PRE / POST

ACCOUNTED FOR

CORRECTED BY	EMPLOYEE NUMBER	DATE	INSPECTED BY	EMPLOYEE NUMBER
WORK ORDER #	LOCATION	350 TAG NUMBER	PROJECT NUMBER	
SERIAL NUMBER	SYSTEM/REASON	UP	DOWN	PRTS #
225779		<input type="checkbox"/>	<input type="checkbox"/>	

FAA FORM 8130-6, APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

Form Approved O.M.B. No. 2120-0018
12/31/2010

 U.S. Department of Transportation Federal Aviation Administration		APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE		INSTRUCTIONS - Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use attachment. For special flight permits complete Sections II, VI and VII as applicable.					
		1. REGISTRATION MARK		2. AIRCRAFT BUILDER'S NAME (Make)		3. AIRCRAFT MODEL DESIGNATION		4. YR. MFR.	FAA CODING
		N406AB		General Atomics, ASI		UPA97000-32		2004	
		5. AIRCRAFT SERIAL NO.		6. ENGINE BUILDER'S NAME (Make)		7. ENGINE MODEL DESIGNATION			
IP03		Rotax		914UL2					
8. NUMBER OF ENGINES		9. PROPELLER BUILDER'S NAME (Make)		10. PROPELLER MODEL DESIGNATION		11. AIRCRAFT IS (Check if applicable)			
One (1)		General Atomics ASI		UPA42430-11		IMPORT			
APPLICATION IS HEREBY MADE FOR: (Check applicable items)									
A 1 STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category) <input type="checkbox"/> NORMAL <input type="checkbox"/> UTILITY <input type="checkbox"/> ACROBATIC <input type="checkbox"/> TRANSPORT <input type="checkbox"/> COMMUTER <input type="checkbox"/> BALLOON <input type="checkbox"/> OTHER									
B <input checked="" type="checkbox"/> SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items) UNMANNED AIRCRAFT									
7 PRIMARY									
9 LIGHT-SPORT (Indicate Class) <input type="checkbox"/> AIRPLANE <input type="checkbox"/> POWER-PARACHUTE <input type="checkbox"/> WEIGHT-SHIFT-CONTROL <input type="checkbox"/> GLIDER <input type="checkbox"/> LIGHTER THAN AIR									
2 LIMITED									
5 PROVISIONAL (Indicate Class) <input type="checkbox"/> CLASS I <input type="checkbox"/> CLASS II									
3 RESTRICTED (Indicate operation(s) to be conducted) <input type="checkbox"/> 1 AGRICULTURE AND PEST CONTROL <input type="checkbox"/> 2 AERIAL SURVEY <input type="checkbox"/> 3 AERIAL ADVERTISING <input type="checkbox"/> 4 FOREST (Wildlife Conservation) <input type="checkbox"/> 5 PATROLLING <input type="checkbox"/> 6 WEATHER CONTROL <input type="checkbox"/> 0 OTHER (Specify)									
4 <input checked="" type="checkbox"/> EXPERIMENTAL (Indicate operation(s) to be conducted) <input type="checkbox"/> 1 RESEARCH AND DEVELOPMENT <input type="checkbox"/> 2 AMATEUR BUILT <input type="checkbox"/> 3 EXHIBITION <input type="checkbox"/> 4 AIR RACING <input checked="" type="checkbox"/> 5 CREW TRAINING <input checked="" type="checkbox"/> 6 MARKET SURVEY <input type="checkbox"/> 0 TO SHOW COMPLIANCE WITH THE CFR <input type="checkbox"/> 7 OPERATING (Primary Category) KIT BUILT AIRCRAFT									
8 <input checked="" type="checkbox"/> SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side) <input type="checkbox"/> 8A Existing Aircraft without an airworthiness certificate & do not meet § 103.1 <input type="checkbox"/> 8B Operating Light-Sport Kit-Built <input type="checkbox"/> 8C Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190									
1 FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE									
2 EVACUATION FROM AREA OF IMPENDING DANGER									
3 OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT									
4 DELIVERING OR EXPORTING <input type="checkbox"/> 5 PRODUCTION FLIGHT TESTING									
6 CUSTOMER DEMONSTRATION FLIGHTS									
C 6 MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)									
A. REGISTERED OWNER (As shown on certificate of aircraft registration) IF DEALER, CHECK HERE									
NAME General Atomics Aeronautical Systems Inc.					ADDRESS 14200 Kirkham Way Poway, CA 92064				
B. AIRCRAFT CERTIFICATION BASIS (Check applicable blocks and complete items as indicated)									
AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.) N/A					<input checked="" type="checkbox"/> AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)				
AIRCRAFT LISTING (Give page number(s)) N/A					<input checked="" type="checkbox"/> SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated) N/A				
C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS									
<input checked="" type="checkbox"/> CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417					TOTAL AIRFRAME HOURS 1066.5		EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed) 0		
D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.									
DATE OF APPLICATION July 1, 2010			NAME AND TITLE (Print or type) Gary Bender, Director of Flight Operations Facilities			SIGNATURE 			
A. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: (Complete the section only if 14 CFR part 21.183(d) applies.									
2		14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)		3		CERTIFICATED MECHANIC (Give Certificate No.)		6	
5		AIRCRAFT MANUFACTURER (Give name or firm)							
DATE			TITLE			SIGNATURE			
(Check ALL applicable block items A and B)									
<input checked="" type="checkbox"/> THE CERTIFICATE REQUESTED									
A. I find that the aircraft described in Section I or VII meets requirements for <input type="checkbox"/> 4 AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE									
B. Inspection for a special permit under Section VII was conducted by: <input type="checkbox"/> FAA INSPECTOR <input type="checkbox"/> FAA DESIGNEE <input type="checkbox"/> CERTIFICATE HOLDER UNDER <input type="checkbox"/> 14 CFR part 65 <input type="checkbox"/> 14 CFR part 121 OR 135 <input type="checkbox"/> 14 CFR part 145									
DATE July 1, 2010		MIDO/FSDO Office ANM-108L		DESIGNEE'S SIGNATURE AND NO. 4		FAA INSPECTOR'S SIGNATURE 1 			

VI. PRODUCTION FLIGHT TESTING	A. MANUFACTURER							
	NAME		ADDRESS					
	B. PRODUCTION BASIS <i>(Check applicable item)</i>							
	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> PRODUCTION CERTIFICATE <i>(Give production certificate number)</i> <input type="checkbox"/> TYPE CERTIFICATE ONLY <input type="checkbox"/> APPROVED PRODUCTION INSPECTION SYSTEM </div> <div style="border-bottom: 1px solid black; width: 40%;"></div> </div>							
	C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS							
DATE OF APPLICATION		NAME AND TITLE <i>(Print or Type)</i>		SIGNATURE				
VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST	A. DESCRIPTION OF AIRCRAFT							
	REGISTERED OWNER		ADDRESS					
	BUILDER <i>(Make)</i>		MODEL					
	SERIAL NUMBER		REGISTRATION MARK					
	B. DESCRIPTION OF FLIGHT							
	FROM		TO					
	VIA		DEPARTURE DATE	DURATION				
	C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT							
	<input type="checkbox"/>	PILOT	<input type="checkbox"/>	CO-PILOT	<input type="checkbox"/>	FLIGHT ENGINEER	<input type="checkbox"/>	OTHER <i>(Specify)</i>
	D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS:							
	E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION: <i>(Use attachment if necessary)</i>							
	F. CERTIFICATION – I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 <u>et seq.</u> and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is safe for the flight described.							
	DATE		NAME AND TITLE <i>(Print or Type)</i>			SIGNATURE		
VIII. AIRWORTHINESS DOCUMENTATION (FAA/DESIGNEE use only)	<input checked="" type="checkbox"/>	A. Operating Limitations and Markings in Compliance with 14 CFR Section 91.9, as applicable.			G. Statement of Conformity, FAA Form 8130-9 <i>(Attach when required)</i>			
	<input checked="" type="checkbox"/>	B. Current Operating Limitations Attached			H. Foreign Airworthiness Certification for Import Aircraft <i>(Attach when required)</i>			
	<input checked="" type="checkbox"/>	C. Data, Drawings, Photographs, etc. <i>(Attach when required)</i>			I. Previous Airworthiness Certificate Issued in Accordance with 14 CFR Section _____ CAR _____ <i>(Original Attached)</i>			
	<input checked="" type="checkbox"/>	D. Current Weight and Balance information Available in Aircraft <u>GC5</u>			J. Current Airworthiness Certificate Issued in Accordance with 14 CFR Section <u>21.191 (b), (c), (F)</u> <i>(Copy Attached)</i>			
	<input type="checkbox"/>	E. Major Repair and Alteration, FAA Form 337 <i>(Attach when required)</i>			<input checked="" type="checkbox"/>	K. Light-Sport Aircraft Statement of Compliance, FAA Form 8130-15 <i>(Attach when required)</i>		
	<input checked="" type="checkbox"/>	F. This inspection Recorded in Aircraft Records						



GENERAL ATOMICS AERONAUTICAL

AIRCRAFT MAINTENANCE RECORD

AIRCRAFT/EQUIPMENT S/N IP03	FLIGHT #	ORIGINATOR R Del Gao	DISC	DATE 7/1/2010	NCR #	FDR #
---------------------------------------	----------	--------------------------------	------	-------------------------	-------	-------

DISCREPANCY:

THE VAS REQUIRES AN FAA AIRWORTHINESS INSPECTION WITH REGARDS TO THE APPLICATION FOR SPECIAL AIRWORTHINESS CERTIFICATE EXPERIMENTAL FOR R/D/ CREW TRAINING / MARKET SURVEY DATED: 7/1/2010

CORRECTIVE ACTION: CAMS SCREEN 122 TAG NUMBER IS THE AFTO 350 TAG NUMBER:

I FIND THIS VAS MEETS THE REQUIREMENTS FOR THE CERTIFICATION REQUESTED AND HAVE ISSUED A SPECIAL AIR/CERT DATED: 7/1/2010

THE OPERATION OF THIS VAS IS CONTINGENT UPON GAASI COMPLIANCE WITH PROGRAM LETTER DATED: 5/18/2010 AND THE APPLICABLE OPERATING LIMITATIONS FOR THIS VAS DATED: 7/1/2010 CONT!

DISPOSITION: CONT!

A NEW CONDITION INSPECTION IS REQUIRED PRIOR TO ISSUANCE OF ANOTHER SPECIAL AIRWORTHINESS CERTIFICATE.

Lin Chen

RICHARD SCHOENBERGER
ASI FAA LA-MIDO

PARTS REMOVED

PART NUMBER	REV	SERIAL NUMBER	NOMENCLATURE	SERIAL TRACK #	HOURS/CYCLES
-------------	-----	---------------	--------------	----------------	--------------

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE			
A	CATEGORY/DESIGNATION EXPERIMENTAL (UNMANNED AIRCRAFT) PURPOSE Research and Dev/Market Surv/Crew Training		
B	MANUFACTURER	NAME N/A ADDRESS N/A	
C	FLIGHT	FROM N/A TO N/A	
D	N- 406AB BUILDER General Atomics ASI DATE OF ISSUANCE 07/01/2010 OPERATING LIMITATIONS DATED 07/01/2010	SERIAL NO. IP03 MODEL UPA97000-32 EXPIRY 06/30/2011 ARE PART OF THIS CERTIFICATE	
E	SIGNATURE OF FAA REPRESENTATIVE Richard Schoenberger DESIGNATION OR OFFICE NO. ANM-108L		
Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).			
FAA Form 8130-7 (07/04) SEE REVERSE SIDE NSN: 0052-00-693-4000			

ENGINE HOBBS
PRE / POST

/

BY

EMPLOYEE
NUMBER

WORK ORDER #	LOCATION	350 TAG NUMBER		PROJECT NUMBER
SERIAL NUMBER 226369	SYSTEM/REASON	UP <input type="checkbox"/>	DOWN <input type="checkbox"/>	PRTS #

07/01/2010



Los Angeles Manufacturing Inspection District Office
3960 Paramount Blvd.
Lakewood, CA 90712

Operating Limitations
Experimental: Research and Development, Market Survey,
and/or Crew Training

REGISTERED OWNER NAME: GENERAL ATOMICS AERONAUTICAL SYSTEMS, INC.	AIRCRAFT BUILDER: GENERAL ATOMICS AERONAUTICAL SYSTEMS, INC.
REGISTERED OWNER ADDRESS: 14200 KIRKHAM WAY POWAY, CA 92064	AIRCRAFT SERIAL NUMBER: IP03
AIRCRAFT DESCRIPTION: ITALIAN PREDATOR FIXED WING UNMANNED AIRCRAFT	AIRCRAFT MODEL DESIGNATION: ITALIAN PREDATOR, UPA97000-32
AIRCRAFT REGISTRATION: N406AB	ENGINE MODEL: ROTAX 914, FUEL INJECTED
YEAR MANUFACTURED: 2004	PROPELLER MODEL: UPA42430-11, General Atomics

The following conditions and limitations apply to all flight operations for the General Atomics Aeronautical Systems, Inc., (GA-ASI) Italian Predator unmanned aircraft system (UAS) while operating in the National Airspace System (NAS).

1. General Information.

a. Integrated system. For the purposes of this special airworthiness certificate and operating limitations, the Italian Predator Unmanned Aircraft System (UAS) operated by GA-ASI is considered to be an integrated system. The system is composed of the following:

- (1) Italian Predator unmanned aircraft, model UPA97000-32.
- (2) UAS control station(s), fixed, mobile, ground-based, or airborne.
- (3) Telemetry, launch, and recovery equipment.

(4) Communications and navigation equipment, including ground and/or airborne equipment used for command and control of the Italian Predator UAS.

(5) Equipment on the ground and in the air used for communication with the chase aircraft, other members of the flight crew, observers, air traffic control (ATC), and other users of the NAS.

b. Compliance with 14 CFR part 61 (Certification: Pilots, Flight Instructors, and Ground Instructors) and part 91 (General Operating and Flight Rules). Unless otherwise specified in this document, the UA pilot-in-command (PIC) and GA-ASI must comply with all applicable sections and parts of 14 CFR including, but not limited to, parts 61 and 91.

c. Operational requirements.

(1) No person may operate this UAS for other than the purpose of research and development and/or crew training, to accomplish the flight operation outlined in GA-ASI Program Letter dated 05/18/2010, which describes compliance with § 21.193(d), Experimental certificates: General, and has been made available to the UA PIC.

(2) This UAS must be operated in accordance with applicable air traffic and general operating rules of part 91 and all additional limitations herein prescribed under the provisions of § 91.319(i), Aircraft having experimental certificates: Operating limitations.

(3) GA-ASI must accumulate at least 50 flight hours flight time on the UAS before customer crew training is permitted, in accordance with § 21.195(d), Experimental certificates: Aircraft to be used for market surveys, sales demonstrations, and customer crew training.

d. UA condition. The UA PIC must determine that the UA is in a condition for safe operation, and in a configuration appropriate for the purpose of the intended flight.

e. Multiple-purpose operations. When changing between operating purposes of a multiple purpose certificate, GA-ASI must determine that the aircraft is in a condition for safe operation and appropriate for the purpose intended. A record entry will be made by an appropriately rated person (that is, an individual authorized by the applicant and acceptable to the FAA) to document that finding in the maintenance records.

f. Operation exceptions. No person may operate this UA to carry property for compensation or hire (§ 91.319(a)(2)).

g. UA markings.

(1) This UA must be marked with its U.S. registration number in accordance with part 45 or alternative marking approval issued by the FAA Production and Airworthiness Division, AIR-200.

(2) This UA must display the word *Experimental* in accordance with § 45.23(b), Display of marks, unless otherwise granted an exemption from this requirement.

h. Required documentation. Prior to conducting the initial flight operations, GA-ASI must forward a scanned electronic copy of the Program Letter, and signed copies of the Special Airworthiness Certificate, and Operating Limitations to the following persons by email:

(1) FAA Western Terminal Service Area, Mark Dillon, Unmanned Aircraft Systems, Air Traffic Control Specialist, Operations Support Group-NISC contractor, ATO, Western Service Center, Operations Support Group, AJV-W23, mark.ctr.dillon@faa.gov, telephone (425) 203-4522.

(2) Richard Posey, Aviation Safety Inspector, Production and Airworthiness Division, AIR-200, 950 L'enfant Plaza SW, Washington, DC 200021, telephone (202) 385-6378 email richard.posey@faa.gov.

i. Change in registrant address. Section 47.45, Change of address, requires that the FAA Aircraft Registry be notified within 30 days of any change in the aircraft registrant's address. Such notification is to be made by providing AC Form 8050-1, Aircraft Registration Application, to the FAA Aircraft Registration Branch (AFS-750) in Oklahoma City, Oklahoma.

j. Certificate display and manual availability. The airworthiness and registration certificates must be displayed, and the aircraft flight manual must be available to the pilot, as prescribed by the applicable sections of 14 CFR, or as prescribed by an exemption granted in accordance with 14 CFR part 11, General Rulemaking Procedures, to GA-ASI.

2. Program Letter. The Italian Predator Program Letter, dated 05/18/2010, will be used as a basis for determining the operating limitations prescribed in this document. All flight operations must be conducted in accordance with the provisions of this document.

3. Flight Test Program. The flight test program is defined in UPA97000-32, Acceptance Test Plan for the Italian Predator Unmanned Aerial Vehicle. The purpose of the flight test plan is to conduct flight tests prior to returning the aircraft to the Italian Ministry of Defense.

4. Authorized Flight Operations Area.

a. General. All operations will be conducted in accordance with the FAA accepted GA-ASI Flight Operations Procedures, ASI-00009 (Civil), and GA-ASI Ground Operations Procedures, ASI-00056 (Civil).

(1) Operations shall not loiter on Victor airways. When necessary, transit of Victor airways shall be conducted as expeditiously as possible.

(2) VFR cloud clearances and visibilities for Class E airspace will be used regardless of class of airspace the UAS is operating in.

(3) Special VFR is not authorized.

b. Description of the authorized flight operations area. The base of operations for the UAS shall be Gray Butte Field, Palmdale, CA and El Mirage Field, Adelanto, CA.

c. Flight test area. The flight operations area authorized for the Italian Predator UA will be referred to as the Primary Containment Area (PCA) and is depicted graphically below. Flight operations in the PCA shall be conducted within the defined boundaries at or below 13,000 ft MSL. When operating in a terminal environment, the UA must have line of sight communications. Flight operations shall not be conducted within the Victorville (KVCV) Class D airspace. The PCA is identified as follows:

Transit Area – GREEN

S1	N34°44'00"	W 118°00'03"
SE	N34°44'00"	W 117°45'00"
NE	N34°48'00"	W 117°45'00"
N1	N34°48'00"	W 118°01'03"
N2	N34°49'40	W 118°05'48"
N3	N34°52'00"	W 118°05'48"
NW	N34°56'00"	W 118°21'03"
W	N34°54'00"	W 118°21'03"
SW	N34°49'45"	W 118°14'03"

Local Ops Area - BLUE

SW	N34°31'00"	W 117°45'00"
NW	N34°48'00"	W 117°45'00"
N1	N34°48'00"	W 117°35'03"
N2	N34°48'30"	W 117°32'03"
N3	N34°50'15	W 117°32'03"
NE	N34°53'30"	W 117°11'53"
E1	N34°39'00"	W 117°30'00"
SE1	N34°34'00"	W 117°30'00"
SE2	N34°31'00"	W 117°37'00"

Lost Link Orbit Points

El Mirage (99CL) Airport – RED			Approved Orbit	
North Emergency Mission MQ-9 Waypoints			Altitudes	
1 N34 38 32 W 117 38 39	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
2 N34 39 36 W 117 37 25	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
3 N34 39 35 W 117 34 29	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
4 N34 38 32 W 117 33 20	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
5 N34 37 38 W 117 34 25	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
6 N34 37 39 W 117 37 28	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL

Gray Butte Field (04CA) Airport – YELLOW			Approved Orbit	
South Emergency Mission MQ-9 Waypoints			Altitudes	
1 N34 32 43 W 117 43 24	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
2 N34 33 43 W 117 42 23	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
3 N34 33 44 W 117 39 16	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
4 N34 32 45 W 117 38 07	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
5 N34 31 45 W 117 39 21	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL
6 N34 31 45 W 117 42 13	5,500 MSL	6,500 MSL	7,500 MSL	8,500 MSL

d. Authorized flight times and conditions. All flight operations must be conducted during daylight hours under visual flight rules (VFR). It is recognized that General Atomics may be permitted to operate within Special Use Airspace (SUA) per authorization of the using agency. Under these circumstances, should the UA venture beyond the boundaries of the SUA (e.g., spill out), provisions of this experimental certificate shall apply, including authorization to only operate within the boundaries of the PCA. In these circumstances, General Atomics is responsible for notifying the FAA of the breach of any operations.

e. Criteria for remaining in the flight test area. The UAS PIC must ensure all UA flight operations remain within the lateral and vertical boundaries of the PCA. Furthermore, the UAS PIC must take into account all factors that may affect the capability of the UA to remain within the flight test area. This includes, but is not limited to, considerations for wind, gross weight, and glide distances.

f. Incident/accident reporting. Any incident/accident and any flight operation that transgresses the lateral or vertical boundaries of the flight test area or any restricted airspace must be reported to the FAA within 24 hours. This information must be reported to the Unmanned Aircraft Program Office, AFS-407. AFS-407 can be reached by telephone at 202-385-4636 and fax at 202-385-4651. Accidents must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: www.nts.gov. Further flight operations must not be conducted until the incident is reviewed by AFS-407 and authorization to resume operations is provided to GA-ASI.

5. Flight Testing. Flight test operations shall be divided into 2 phases:

a. Phase 1.

(1) Shall be conducted within visual line of sight of the pilot/observer.

(2) Shall be within 5 statute miles of the airport for the first 5 flight hours, after which the radius may be expanded to 10 statute miles.

(3) During Phase 1 flight testing, the aircraft may not be controlled by satellite communications for the first 10 flight hours. A minimum of 1 flight hour shall be demonstrated under satellite control prior to exiting Phase 1.

NOTE: Operation of satellite communications is at the discretion of General Atomics. If satellite communications is demonstrated during Phase II, paragraph 5(a)(3) applies within 10 statute miles of the airport.

(4) Fuel load shall be limited to 150 pounds (approximately 6 hours), this includes a reserve required by 14 CFR 91.151.

(5) Initial Phase 1 flight testing shall be completed upon accumulation of 12 flight hours. Following satisfactory completion of Phase I flight testing, the flight operations director or chief pilot must certify in the records that the aircraft has been shown to comply with § 91.319(b). Compliance with § 91.319(b) must be recorded in the aircraft records with the following, or a similarly worded, statement:

"I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during the flight testing: speeds V_{so} _____, V_x _____, and V_y _____."

b. Phase 2 flight-testing authorizes flight in the PCA and the Edwards ranges. Fuel shall be limited to that necessary to complete the intended mission plus 50 pounds.

6. UA Pilots and Observers.

a. UA PIC roles and responsibilities.

(1) All flight operations must have a designated UA PIC. The UA PIC has responsibility over each flight conducted and is accountable for the UA flight operation.

(2) The UA PIC must perform crew duties for only one UA at a time.

(3) The UA PIC is responsible for the safety of the UA as well as persons and property along the UA flight path. This includes, but is not limited to, collision avoidance and the safety of persons and property in the air and on the ground.

(4) The UA PIC must avoid densely populated areas (§ 91.319) and exercise increased vigilance when operating within or in the vicinity of published airway boundaries.

b. UA PIC certification and ratings requirements.

(1) UA pilots shall hold, at a minimum, an FAA Private Pilot certificate, Instrument Rating, Airplane category with Single or Multiengine class ratings, and have it in their possession.

(2) The UA PIC must have and be in possession of a valid second-class (or higher) airman medical certificate issued under 14 CFR part 67, Medical Standards and Certification.

c. UA PIC currency, flight review, and training.

(1) No person may act as pilot in command of an unmanned aircraft unless that person has made at least three takeoffs and three landings in manned aircraft within the preceding 90 days acting as the sole manipulator of the flight controls.

(2) The UA PIC must maintain currency in unmanned aircraft in accordance with GA-ASI company procedures.

(3) The UA PIC must have a flight review in unmanned aircraft every 24 calendar months in accordance with GA-ASI company procedures.

(4) All UA PICs must have successfully completed applicable GA-ASI company training for the UAS.

(5) Training of UA pilots shall be conducted by certified flight instructors (CFI) or ground instructors (GI). Required training and currency events shall be endorsed by the CFI/GI in company records and the pilot's logbook. Instructors shall follow the guidance specified in 14 CFR 61, Subpart H and Subpart I and shall maintain currency in accordance with these sections.

d. Supplemental UA pilot roles and responsibilities.

(1) Any additional UA pilot(s) assigned to a crew station during UA flight operations will be considered a supplemental UA pilot.

(2) A supplemental UA pilot assists the PIC in the operation of the UA and may do so at the same or a different control station as the PIC. The UA PIC will have operational override capability over any supplemental UA pilots, regardless of position.

(3) A supplemental UA pilot must perform crew duties for only one UA at a time.

e. Supplemental UA pilot certification. The supplemental UA PIC need not be a certificated pilot, but must have successfully completed a recognized private pilot ground school program.

f. Supplemental UA pilot currency, flight review, and training.

(1) All UA pilots must maintain currency in unmanned aircraft in accordance with GA-ASI company procedures.

(2) All UA pilots must have a flight review in unmanned aircraft every 24 calendar months in accordance with GA-ASI company procedures.

(3) All UA pilots must have successfully completed applicable GA-ASI training for the UAS.

(4) Training of UA pilots shall be conducted by certified flight instructors (CFI) or ground instructors (GI). Required training and currency events shall be endorsed by the CFI/GI in company records and the pilot's logbook. Instructors shall follow the guidance specified in 14 CFR 61, Subpart H and Subpart I and shall maintain currency in accordance with these sections.

g. Observer roles and responsibilities. The task of the observer is to provide the UA PIC with instructions to maneuver the UA clear of any potential collision with other traffic. To satisfy these requirements:

(1) The observer must perform crew duties for only one UA at a time.

(2) At no time will the observer permit the UA to operate beyond the line-of-sight necessary to ensure maneuvering information can be reliably determined.

(3) At no time will the observer conduct his/her duties more than 2.5 statute miles laterally or 3000 ft vertically from the UA.

(4) An observer must maintain visual contact with the UA to discern UA attitude and trajectory in relation to conflicting traffic.

(5) An observer may be positioned in a chase aircraft. When a chase aircraft is used, it must maintain a reasonable proximity, and must position itself relative to the UA to reduce the hazard of collision in accordance with § 91.111, Operating near other aircraft. When the observer is located in a chase aircraft, the observer's duties must be dedicated to the task of observation only. Concurrent duty as pilot of the chase aircraft is not authorized.

(6) Observers must continually scan the airspace for other aircraft that pose a potential conflict.

(7) All flight operations conducted in the flight test area must have an observer to perform traffic avoidance and visual observation to fulfill the see-and-avoid requirement of § 91.113, Right-of-way rules: Except water operations.

h. Observer certification.

(1) All observers must either hold, at a minimum, an FAA private pilot license or military equivalent, or must have successfully completed specific observer training acceptable to the FAA. An observer does not require currency as a pilot.

(2) All observers must have in their possession a valid second-class (or higher) airman medical certificate issued under part 67.

i. Observer training.

(1) All observers must be thoroughly trained, be familiar with, and possess operational experience with the equipment being used. Such training is necessary for observation and detection of other aircraft for collision avoidance purposes as outlined in GA-ASI program letter.

(2) All observers must have successfully completed applicable GA-ASI training for the UAS.

j. Training and currency records. The training and currency requirements for pilots and observers listed in this section must be documented by GA-ASI in the individual pilot/observers personnel records and made available for inspection upon request by the FAA.

7. Equipage.

a. The UAS shall be equipped with an operable Mode C transponder and two-way communications equipment allowing communications between the UA pilot, chase aircraft, observers, all UAS control stations, and Air Traffic Control.

b. The UA and chase aircraft shall be equipped with operable navigation, position, and strobe/anti-collision lights.

8. Communications.

a. Before UA flights.

(1) Before conducting operations, the frequency spectrum used for operation and control of the UA must be approved by the Federal Communications Commission or other appropriate government oversight agency.

(2) Each UAS Flight operation must be coordinated by telephone with High Desert TRACON and receive a transponder code at (661) 277-3843, at least 2 hours prior to the start of the flight operation.

b. During UA flights.

(1) Upon initial contact with ATC, the PIC must indicate the experimental nature of the aircraft in accordance with 14 CFR § 91.319.

(2) The UA PIC must maintain two-way radio communication with ATC. In addition, if a chase aircraft is utilized, the chase aircraft pilot shall maintain two-way radio communication with the UA PIC and an active listening watch on the assigned ATC frequency. Should the UAS experience communication difficulty or failure, the chase aircraft will assume responsibility for two-way radio communication with ATC for the flight.

The UA shall remain within 2.5 nm and 1500' AGL of the El Mirage or Gray Butte airport when conducting local traffic pattern operations and shall remain within the specified observer distances. While in the traffic pattern instantaneous two-way radio communications with ATC are not required.

(3) The PIC and observer(s) must maintain two-way communications with each other during all operations.

(4) If communications cannot be maintained between the PIC, chase aircraft pilot, observer(s) and appropriate ATC facility, the UA will squawk 7600-transponder code, expeditiously return to its base of operations while remaining within the containment area, and conclude the flight operation.

(5) If the chase aircraft is operating more than 100ft above/below and or ½ nm laterally, of the UA, the chase aircraft PIC will advise the controlling ATC facility.

(6) The UA PIC or chase plane PIC (whichever is applicable) will notify ATC of any in flight emergency or aircraft accident as soon as practical.

(7) The PIC shall comply with all ATC instructions and/or clearances.

(8) The UA PIC shall not accept any ATC clearance requiring the use of visual separation or sequencing.

(9) *Prior to flight, the UAS flight operations schedule for N406AB must be provided to Mr. Cotry Shearill, at email cotry.shearill@faa.gov, at the Van Nuys FSDO.*

9. Flight Conditions.

a. Daylight operations. All flight operations must be conducted between official sunrise and sunset in visual meteorological conditions (VMC), including cloud clearance minimums as specified in § 91.155, Basic VFR weather minimums. Flight operation in instrument meteorological conditions (IMC) is not permitted.

b. Prohibitions.

(1) The UA is prohibited from aerobatic flight, that is, an intentional maneuver involving an abrupt change in the UA attitude, an abnormal acceleration, or other flight action not necessary for normal flight. (See § 91.303.)

(2) Flight operations must not involve carrying hazardous material or the dropping of any objects or external stores.

(3) The UA may not be operated by more than one control station at a time, and the control station may not be used to operate multiple UA.

c. Transponder requirements.

(1) The UA must operate an altitude encoding transponder Mode C in accordance with applicable guidelines and procedures.

(2) Chase aircraft transponders must be on standby while performing chase operations flight with the UA unless otherwise directed by ATC.

d. Transponder failure.

(1) In the event of transponder failure on either the UA or the chase aircraft, the UA must conclude all flight operations and expeditiously return to its base of operations within the prescribed limitations of this authorization.

(2) In the event of UA transponder failure, a chase aircraft will operate its transponder in Mode C.

10. Flight Termination and Lost Link Procedures.

a. Flight termination. In accordance with GA-ASI Program Letter, dated 05/18/2010, flight operations must be discontinued at any point that operation within the approved flight area(s) is breached or the UA can no longer be operated in a safe manner.

b. Lost link procedures.

(1) In the event of lost link, the UA must provide a means of automatic recovery that ensures airborne operations are predictable and that the UA remains within the flight test area. The chase aircraft or observer, all other UAS control stations, and the appropriate ATC facility will be immediately notified of the lost link condition and the expected UA response.

(a) If lost link occurs within a restricted or warning area, or the lost link procedure above takes the UA into the restricted or warning area – the aircraft will not exit the restricted or warning areas until the link is re-established.

(b) The UA lost link mission will not transit or orbit over populated areas.

(c) When outside of restricted/warning area airspace, lost link programmed procedures will avoid unexpected turn-around and/or altitude changes and will provide sufficient time to communicate and coordinate with ATC.

(d) Lost link orbit points shall not coincide with the centerline of Victor airways. The approved lost link orbit points north of El Mirage and south of Gray Butte are depicted in red and yellow on the attached operational area graphic and the coordinates are attached.

(2) The software for the aircraft lost link timer shall be set to 3 hours. If aircraft control cannot be re-established within 3 hours, the aircraft shall execute a controlled descent to the ground.

11. Maintenance and Inspection.

a. General requirements. The UAS must not be operated unless it is inspected and maintained in accordance with the General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, ASI-03767-WC-2, dated 06/09/2010 for the UA, and ASI-01176-B-2-5INSP-1 for the GCS dated 02/23/2009, or later FAA approved revision. GA-ASI must establish and maintain aircraft maintenance records (see paragraph 11(d) below).

b. Inspections. No person may operate this UAS unless within the preceding 12 calendar months it has had a condition inspection performed according to the FAA approved General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, or later FAA approved revision. The UAS must also have been found to be in a condition for safe operation. This inspection will be recorded in the UAS maintenance records as described in paragraph 11(d) below.

c. Authorized inspectors. Only those individuals trained and authorized by GA-ASI and acceptable to the FAA may perform the inspections and maintenance required by these operating limitations.

d. Maintenance and inspection records. Maintenance and inspections of the UAS must be recorded in the UAS maintenance records. The following information must be recorded:

(1) Maintenance record entries must include a description of the work performed, the date of completion for the work, the UAS total time-in-service, and the name, signature, and certificate number of the person accepting the work performed.

(2) Inspection entries must contain the following, or a similarly worded, statement: *I certify that this UAS was inspected on (date), in accordance with the scope and detail of the GA-ASI Inspection and Maintenance Program, and was found to be in a condition for safe operation.*

(3) UAS instruments and equipment required to be installed must be inspected and maintained in accordance with the requirements of the General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, or later FAA accepted revision. Any maintenance or inspection of this equipment must be recorded in the UAS maintenance records.

(4) No person may operate this UAS unless the altimeter system and transponder have been tested within the preceding 24 calendar months in accordance with § 91.411, Altimeter system and altitude reporting equipment tests and inspections, and § 91.413, ATC transponder tests and inspections. These inspections will be recorded in the UAS maintenance records.

12. Information Reporting. General Atomics shall provide the following information to donald.e.grampp@faa.gov on a monthly basis.

- a. Number of flights conducted under this certificate.
- b. Pilot duty time per flight.
- c. Unusual equipment malfunctions (hardware or software).
- d. Deviations from ATC instructions.
- e. Unintended entry into lost link flight mode that results in a course change.

13. Revisions and Other Provisions.

a. Experimental certificates, program letters, and operating limitations. The experimental certificate, FAA-accepted GA-ASI program letter, and operating limitations cannot be reissued, renewed, or revised without application being made to the Los Angeles Manufacturing Inspection District Office (LA MIDO), in coordination with AIR-200. AIR-200 will be responsible for FAA Headquarters internal coordination with the Aircraft Certification Service, Flight Standards Service, Air Traffic Organization, Office of the Chief Council, and Office of Rulemaking.

b. Certificates of waiver or authorization. GA-ASI shall immediately notify the Production and Airworthiness Division, AIR-200, and the LA MIDO, if there is any plan for requesting a Certificate of Authorization or Waiver (COA) for UAS operations during the time the experimental certificate is in effect. An entry in the aircraft logbook is required to document that the aircraft flight authority has been changed from the experimental certificate to COA. When COA operations are concluded and the aircraft resumes flying under the experimental certificate, a record entry will be made in the aircraft logbook by an appropriately rated person to document that the aircraft is in a condition for safe operation and appropriately configured.



c. Amendments and cancellations. The provisions and limitations annotated in this operational approval may be amended or cancelled at any time as deemed necessary by the FAA.

d. Reviews of revisions. All revisions to GA-ASI FAA-approved Italian Predator INSPECTION AND MAINTENANCE PROGRAM must be reviewed and approved by the Van Nuys Flight Standards District Office.

14. UAS Modifications.

a. Software and system changes. All software and system changes will be documented as part of the normal maintenance procedures and will be available for inspection. All software and system changes must be inspected and approved in accordance with the General Atomics Italian Predator INSPECTION AND MAINTENANCE PROGRAM, ASI-03767-WC-2, dated 06/09/2010 for the UA, and ASI-01176-B-2-5INSP-1 for the GCS dated 02/23/2009, or later FAA approved revision. All software changes to the aircraft and control station are categorized as major changes, and must be provided in summary form at the time they are incorporated.

b. Major modifications. All major modifications, whether performed under the experimental certificate, COA, or other authorizations, that could potentially affect the safe operation of the system, must be documented and provided to the FAA before operating the aircraft under this certificate. Major modifications incorporated under COA or other authorizations must be provided only if the aircraft is flown under these authorizations during the effective period of the experimental certificate.

c. Submission of modifications. All information requested must be provided to AIR-200.

End of Limitations

.

.

.

.

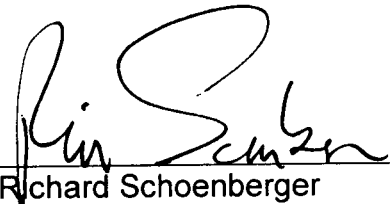
.

.

.

.

07/01/2010



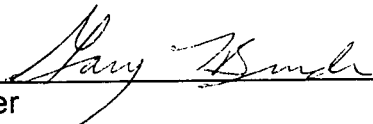
Richard Schoenberger
Los Angeles Manufacturing Inspection District Office
3960 Paramount Blvd.
Lakewood, CA 90712

7/1/2010

Date:

I certify that I have read and understand the operating limitations and conditions that are a part of the special airworthiness certificate, FAA Form 8130-7, issued on 07/01/2010 for the purposes of research and development, market survey and/or crew training.

This special airworthiness certificate is issued for the Italian Predator model UPA97000-32 UAS, serial number IP03, registration number N406AB.



Gary Bender

7/1/2010

Date:

Director, Flight Operations

General Atomics, Aeronautical Systems Incorporated

